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The Boston Medical and Surgical Journal

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DELAYED INFECTION OR IRRITATION AND CONCOMITANT METABOLIC ERRORS.

By William A. Lurie, M.D., New Orleans, La.

[From the Clinical Department, Charity Hospital.]

The title of this paper may seem unique. The idea of infection, its various sources and course, as well as its eradication and subsequent metabolic disturbance, seem sufficient. As delayed infection, new possibilities are unfolded in so far as recognition and treatment of metabolic or functional changes are concerned.

The consideration of delayed infection as an ever potent factor, possible of alteration of body metabolism, is what that title is intended to convey, as in contra-distinction to the ideas of focal infection. The determination of an error of metabolism should be early recognized and corrected so that by the eradication of recognized points of infection or irritation more serious errors of metabolism may be avoided. Points of infection or irritation are sought for and discovered only at the time of a serious breakdown, even though long existent. By the discovery of some delayed infection it is more often possible to recognize early metabolic errors and forestall later break-downs, rather than to allow an infection or irritation to proceed to the gravity of a definite and defined focus.

It is first necessary, in the recognition of these conditions, to understand what influence upon the organism may be looked for, before the stage at which a defined focus may be recognized. What constitutes a healthy organism and what deviations from health are possible, is therefore a question necessary of early determination.

The most simple and perhaps true definition of what constitutes health may be found in the statement that health is perfect coördination of an organism. Explained in detail, it means that the function of the various organs comprising that organism are perfect and that the energy consequent of such perfect function can be and is properly utilized and disposed of. Should this precept be altered in the least, in any direction, health, that is perfect health, will be deviated from. Health means that there will be no store-house established anywhere in the body to store excess energy; it means that no more energy is produced than is needed and that all that is required is at all times produced. The failure of production of one form of energy, or the over production of some other, is a deviation from health, and should be recognized as such.

However careful the laboratory studies on body mechanism or however careful and simple and correct these experiments and their deductions have been, the incident of "personal equation," so called, has only been mentioned.

To quote Zinsser:—"Every infectious disease is the result of a struggle between two variable factors—the pathogenic powers of the bacteria on the one hand, and the resistance of the subject on the other,—each of these again modified by variations in the condition under which the struggle takes place."

It is a well known fact that nature is ever attempting to rebuild lost parts; to repair is the law of nature. Nature is not destructive and the action of any organ of the complex organism such as a human body is, is not directed to the breaking down of the organism as a whole but to the rebuilding and the reconstruction of such parts as are destroyed by cell function and cell activity. It is only when cell activity has been so over stimulated that the ratio of its ferment production is too abnormal, that such cell activity and ferment production or rather over production becomes a vicious product capable of destructive changes.

In the harmonious action of such a harmonious whole, as body health is, each individual organ bears a relation to all of the others, no matter how infinitesimal such action may appear on a hasty study or survey. The sudden call to activity of a dormant part or organ influences every cell of the entire organism. The call for increased nourishment on account of increased or renewed activity of a part is the first change we have learned to recognize. We cannot deny that a sudden call for nourishment at one point, will cause a temporary lack of nourishment elsewhere. As a whole the body mechanism soon becomes readjusted and adapts itself to such sudden calls.

It is known that the influence of infection, or even gastric digestion, may be recognized within a short space of time throughout the entire body. The element of time, the rate of activity as well as the rapidity of introduction,—each plays an important rôle. Thus the "concentration and velocity of reaction" of body ferments may be applied to individual cell function and to various organs such as the ductless glands, etc. Each is influenced by a sudden call to action by either normal functional stimuli or some abnormal stimulation, which may be an effort at body protection. The ductless glands can and do react to a variety of stimuli and they are influenced by "conditions under which the struggle takes place." They are as certainly influenced by a mild, but nevertheless protracted stimulation as by sudden concentrated attacks. The alteration in one gland or set of glands will eventually cause an alteration in another set or all other ductless glands or ferment producing cells.

Referring to Zinsser again and his law of immunity, which is that "immunity and resistance vary in direct proportion," we find again a correlation between existing invasion and protection against invasions.

As the mighty armies of men just returned from the recent war have demonstrated that a fortress or battle sector is secure only in proportion to the resistance that can be utilized to overcome the force displayed by the attackers, and that a weakening or loss at one point in battle has its effect distributed over the entire front, in morale as well as battle strength; so infection or a pathological invasion or the vicious or even normal variation in the activity of a group of cells has its influence on the entire mechanism and on each integral part of that organism; not alone as the individual influence of the infecting organism, but also a deleterious effect due to altered function and action of enzymes. By certain actions there is produced an over functioning of some, while from others there may be a hyposecretion.

The constant alteration in normal body equilibrium, active over a long period of time, is productive of a lower resistance or vitality, making possible the definition of a focus of infection or irritation which in reality may have been long present, but dormant or delayed.

By the defining of the infection as delayed, an attempt is made to picture what change is taking place in an organism during such time of infection or irritation. In the acute stage there is a sudden call made upon the forces for protection. If the vitality is sufficient, such a process is overcome and a wall of protection is formed about it. There is no denying that at such a time all the resources of the body have been called upon and have donated their share in the battle. If such an infection is overcome, but not healed, there remains a constant call upon the body to continue the protection which it had started. What is the effect of such a continued irritation? It is in reality a delaying of a subsequent infection,—a delayed infection.

Following the healing of such conditions, there may be an apparent return to health, until some other, often acute, infection or contagion takes place and following it; recovery does not take place. Some metabolic disturbance is noted. The correction of it is impossible until the old focus is re-examined, and in it is again found an active infection. This is in keeping with the teachings of Duke on double infections and the cure of the lesser to heal the greater.

Special protection is afforded by the action of specific organs. In the over functioning of these organs in their efforts at protection they require a greater supply of nourishment. Their capacity of ferment storage and reserve is increased. They enlarge. Organs not so vital in the prevailing battle suffer through a lack of function and nourishment. In this manner the whole organism becomes upset. The body forces are maintained and functionate to the prevention of a definite invasion. With the advent of a second infection or irritation, the resources are again called on and the heavily burdened protective ferments are overtaxed. The line of reserve is weakened. What was reserve for the protection against an existing infection is utilized. The replacement of such reserve becomes a burden. An infection which lay dormant by virtue of such forces of body protection begins its advance throughout the body. At such a stage it is recognized as a focus of infection.

Perhaps the various points I have attempted to make are more or less conceded, but their rehearsal is not amiss as introduction to my subject. I shall attempt to draw the same analogies between infections and irritations and the serious effect on metabolism and the serious errors of metabolism which are found incident to such infections. I am choosing the jaws as the sight of such delayed infection. I know I have selected a popular area, both by point of choice of infection and also from the point of frequency of occurrence.

Infection about the jaws and teeth is a conceded point. Their pathogenicity is also conceded. Roentgenographically, much of such infection can be portrayed. Truthfully there is more often more portrayed than is recognized or even looked for.

It is taken for granted that a tooth socket heals after extraction of the tooth, and that the infection heals or the irritation is obliterated.

Such areas do not always heal.

It is possible to demonstrate on properly taken roentgenographic films that where an infection was located in the jaw about a tooth as far back as twenty years before, at which time that infected member was extracted, that such an area may be still unhealed. On operation, that fact can be demonstrated; and in the majority of instances active, though attenuated culture of bacteria can be grown. Little consideration is given the absorption of alveolar process, following extraction of teeth, but such absorption is a toxic process.

The changes in metabolism, the results of an attempt by nature to rid itself of the irritation of such areas, are not inconsequential. The fight against infection proceeds continuously. The resultant alteration in function, activity, and rate of production of various enzymes is likewise continuous. Where there is a great change in the rapidity of enzyme production there is a corresponding fluctuation in the concentration of such enzymes. The greater the amount and the greater the velocity of production of enzymes, the less their concentration.

The subject which concerns us is not alone the diagnosis of such conditions, but the attempt to fathom, if possible, their relation, if any, to subsequent metabolic changes. It is the continuation of such processes that give the subject to this paper.

Osborne states that "the number of serious things throughout the body that are associated with these mouth infections is simply astounding."

Their association is admitted on all sides. Their gravity is also admitted, their treatment conceded. Such alterations as do take place during healing are not recognized as metabolic changes incident to an infection or even considered as possible errors of metabolism.

Serious metabolic errors are found associated with old unhealed processes of a variety of natures, but most constantly and in appaling proportions, associated with mouth conditions. The simple healing over of the socket of an extracted tooth seems innocent enough. Little concern is given the physiological disturbance occasioned by the absorption of useless alveolar process. The pathology of the absorption of such bone structure has been little studied, likewise the pathology of the absorption of toxic matter from about a devitalized tooth.

"The animal disposes normally over a defective mechanism of considerable efficiency."—Zinsser.

What is taking place during such a defensive battle must be considered; the disposition of the foe and the effect upon the presence of a subdued but not disposed of foe must also be seriously thought of.

In the cases here outlined the connection between the process termed "delayed infection" and the condition of the patient will be apparent.

CASE 1. Miss L. L., dancing teacher, 40 years old, applied for examination and treatment in October of 1917. History of the case as follows: Has had "lumbago" of varying severity for the past six years. Has noticed that pain at times has ascended to the neck and back of head. In the past two years has been conscious of head noises and at times a dizziness which prevented her dancing. Has been under constant care of dentist, and medico-dentally the mouth was in good condition, but at times patient complained of soreness in the gums. Roentgenograms of the jaws and teeth disclosed several small areas of dental caries between some of the molars and under the gingival margins, and a devitalized upper left lateral tooth on which there was a porcelain crown with a pin in the root. At the apex of the root there was an area of rarefaction visible, and within this area, some foreign matter of about metallic opacity. The specific history of this tooth was as follows: When about 18 years old a gold filling was put in this tooth. By accident the filling was knocked out and the tooth broken about 6 years later. When she was 26, for cosmetic effect, the tooth was ground off and a crown attached. Two years later a large "gum boil" formed which was opened. This abscess never healed. A year later, it was injected with bismuth paste, after which it apparently gave no further local trouble. This patient was quickly and entirely relieved by the removal of the root in question and the proper surgical operation performed to remove the foreign material and obliteration of the dead space. Her mouth was further cared for by a dentist, who made suitable repairs and filled the cavities, as was disclosed by the roentgenograms.

In further analysis of this case we find it one which is more prone to be treated for the symptoms it displays, as "lumbago, vertigo," etc., rather than by the removal of the existing cause of a serious metabolic error. As a young and vigorous woman, active as she must have been to undertake to teach dancing, she was able to withstand a greater assault of infection. Her system, in strength, walled off the process by a circumscribed abscess. The effect, however, of the continuous battle against an invading host began to tell after 14 years. She developed symptoms of improper metabolism. Her powers of reorganization were overtaxed by the constant and slowly losing fight against invasion. Gland products, which were used for protection, were called and utilized elsewhere. Once she was relieved for the necessary application of energy to such a battle, her metabolic balance was reëstablished. Her symptoms disappeared.

CASE 2. Mr. J. R. P., plumber, age 44 years. Applied to me for treatment in the spring of 1917. Has had backache for a number of years; exact number not known but positive of more than six. In the past three years has experienced pain in the left sciatic nerve. This has been gradually increasing.

History of the mouth as follows: Has been wearing a comfortable full upper plate for past 12 years. Began losing teeth in the upper jaw about 20 years ago. Does not recall any particular trouble with any of those teeth. Roentgenograms revealed unhealed and infected sockets in about the position of the cuspid on the one side and the second bicuspid on the other. Pain was relieved almost at once upon opening and relieving the infected areas.

This case is another which demonstrates that a constant error in metabolism is more apt to produce symptoms which later are often treated as a definite condition, without the readjustment of the fundamental underlying cause of the error.

In citing the next case, I believe it is one in which there is the greatest possibility of the improvement of the patient and the character of case which is too often overlooked. It is such a case as may perhaps be considered one of a more acute type of serious metabolic error,—where resistance and immunity are both de-

Fig. 1.

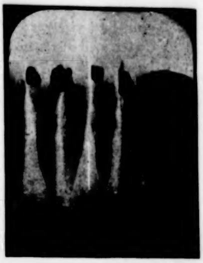


Fig. 2.

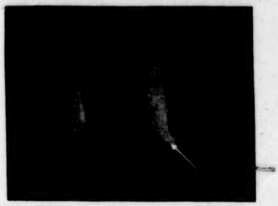


Fig. 3.

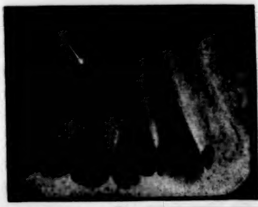
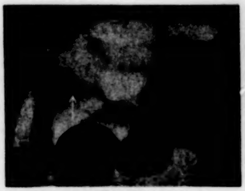


Fig. 4.



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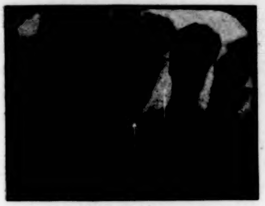

Fig. 6.

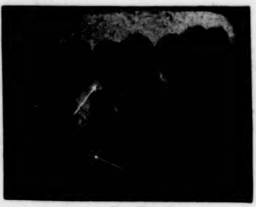

Fig. 7.

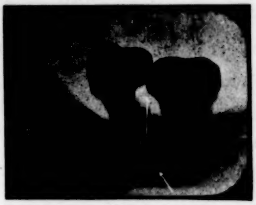

Fig. 8.

Fig. 1.—Rarefied area existing several years after tooth extraction and a chronically infected process about the remaining tooth. Figs. 2 and 3.—Types of alveolitis dentalis. Fig. 4.—Case of anal sinus infection healed after cure of this area. Figs. 5, 6, 7, 8.—Types of oral infection commonly seen and untreated.

ficient. It is the type of case most often neglected.

Case 3. Miss M. A., age 22 years, November, 1916. Housemaid. Had been losing weight at times for the past three years, no cough, but very anaemic. Sought advice of physicians, who agreed she should seek relief in a high and dry climate. About two years ago had several teeth extracted and extensive dental repairs were executed, following which she was fastidious in her care of her mouth. Just previous to calling on me, she was examined by her dentist, who pronounced her mouth in good condition. Roentgenograms revealed several infected areas about teeth and in the alveolar process. There was practically no healing of the alveolar process where the teeth had been extracted. Following the radical operation upon the jaws for the removal of these foci of infection, this patient began to gain quickly, even before any dental replacements had been executed. Two years later she was again examined by the same physician who had made the original diagnosis of incipient tuberculosis and no trace of her former condition could be demonstrated. During this period the patient continued at her work. She has since married. My last report in this case was to the effect that she is still well.

I believe that a case such as the one above outlined is proof of the contention that health is, in the most part, dependent on "concentration and velocity of reaction" of enzymes in the production of metabolic stability. The rate and intensity of the specific protection of physiologic cell activity are not so often altered, but the "concentration and velocity of reaction" are. A greater demand without any increase in supply surely causes a lessening in concentration. A demand over a greater area will produce a lowering of velocity with which that demand can be satisfied.

We often note cases of so called "pyorrhea alveolaris," or "alveolitis dentalis," according to Dr. John J. McNulty. Such cases are seen concomitant with a number of general conditions, among them being the glycosurias, tuberculosis, and syphilis. It is not the local infection in the buccal cavity which produces the alterations in metabolism which are capable of the manifestation of such symptoms. Neither is it so likely that the association of metabolic functions of the organism are the sole and primary cause of the maxillary infection. It is most likely true, however, that an association of both, plus a minor and at first delayed infection, is necessary to complete the picture of so serious a local picture of metabolic error such as these are,—an error which may often be corrected by an elimination of the secondary infection as an assistance to the body in its attempt to regain the metabolic equilibrium.

The conclusions which I believe can be drawn from a study of cases of this nature are: that "delayed infection" has not been recognized until it developed to the point termed focal infection; that "delayed infection" produces serious metabolic errors, in the alteration of the function of the various so called "ductless glands;" that a lowering of the resistance of the body opens the way to greater activity for such "delayed infections;" and that the eradication of the infectious focus, long dormant, must be accomplished before a perfect metabolism can be established; that prime among the sources of "delayed infection" is the extraction of teeth, without the resection of alveolar tissue allowing the development of dead space which remains infected; that the errors of metabolism may result from toxic substances not necessarily of bacterial origin; that long continued irritation, infection, or altered function produces pathological conditions; that the treatment of such conditions by symptoms and not by the cure of the exciting cause of metabolic error is only causing a further delay in the eradication of an infection, which ultimately may be discovered as an established focus, somewhere; that "pyorrhea alveolaris" is more truly "alveolitis dentalis," or perhaps, more correctly, "alveolitis maxillo-dentalis."

I wish to acknowledge the great service Dr. John J. McNulty, of New York, has rendered me in collaboration, and in his article "Alveolitis Dentalis," Boston Medical and Surgical Journal, February 13, 1919.

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A BOSTON PHYSICIAN OF FORMER DAYS.

In an address by Dr. Oliver Wendell Holmes at the Harvard Medical School, originally delivered on November 28, 1882, reprinted in the issue of the Journal for December 7, 1882, and republished in the Journal of April 3, 1919, there is mentioned one of the less well remembered Boston physicians of a former generation, Dr. George W. Otis, Jr. Dr. Holmes refers to him in connection with a medical school which he had joined in forming with Dr. James Jackson, Dr. Walter Channing, Dr. John Ware, and Dr. Winslow Lewis, and which became the foundation of the Harvard Medical School in 1834. Dr. Otis was one of the younger members of this association, and a graduate of Harvard College in 1818. In speaking of his personal qualities, Dr. Holmes characterizes Dr. Otis as "less widely known, but a fluent and agreeable lecturer, and esteemed as a good surgeon." Dr. Otis was a charter member of the Boston Society for Medical Improvement, which was incorporated in 1839, and was a member of the Massachusetts Medical Society from 1826 to 1860. He practised medicine in Chelsea, where he died on August 2, 1872. The following letter written by Dr. Otis in 1822, presenting his observations on surgery in London a century ago, gives an interesting account of the early activities of this Boston physician of former days:

SURGERY IN LONDON A CENTURY AGO.

George W. Otis, Jun., to Dr. John C. Warren.

London, June 28, 1822.

My Dear Sir:

Previous to my leaving America, you requested me to inform you of anything either new or worthy of notice in the profession that I might become acquainted with during my absence. With a view to fulfill this request, I shall undertake to detail to you, as well as I am able within the limits of a letter, some of the observations I have made. If they prove in the least degree interesting to you, I shall be highly gratified. Since I have been here I have devoted myself principally to the lectures and practise of Bartholomew's hospital, where you know are Mess. Abernethy and Lawrence. The practise here is extensive, and conducted on the same principles as in America; in fact, I see no difference; operations are more rare than I expected, especially at this hospital. Accidents are very numerous, and among them fractures form the greatest part; I observe, however, nothing peculiar in their treatment, except in that of the fractured femur. The patient is laid on his back upon a mattress, fitted to a bedstead fashioned to the shape of two double inclined planes; these are so constructed that they can be elevated or depressed at pleasure, the lower ones meet at an angle under the ham; by this means extension is made by the leg, and counterextension by the opposing thigh; no splints or bandages are used: the heel is fastened to a foot board, the whole apparatus is so constructed as only to operate on the affected limb. This, I believe, is the original principle of Charles Bell, improved by Mr. Earl, a junior surgeon here. In bad cases of compound fractures they don't amputate at this hospital unless the limb is entirely crushed, and then not until some time after the accident. I have certainly seen very bad cases do well by being left to themselves. Mr. Abernethy says he never knew a patient to recover (in London) when amputation had been performed under these circumstances.

I have seen Mr. Lawrence operate for lithotomy twelve times; he uses Blizzards knife: all his patients have done well. In one instance of an old man with enlarged and hardened prostate he met with a good deal of difficulty; he had anticipated this and therefore determined to operate with the Gorget; none of the ordinary sounds were long enough to reach the bladder, so far had it been pushed back by the prostate; after the incision down to the urethra had been made, it was found impossible to penetrate through the gland with the Gorget by the exertion of any justifiable force; he then tried the knife, and after much labor succeeded in making a small opening into the bladder; but to effect this it was necessary to extend the knife the whole length of the blade and most of the handle, so deep had the bladder receded; but now another difficulty arose which had not been foreseen; the wound was so deep that when the forceps were introduced, the joint penetrated so far that the handles could not be expanded; this difficulty was partly remedied by enlarging the external wound, the calculi were then removed, and the operation finished. I think it was the most tedious and difficult operation I ever saw; the patient was on the table an hour and a quarter. Mr. Lawrence had no hopes of his recovery, but strange as it is, he has not had a bad symptom; the wound is at present nearly healed, but it has been very slow. In the last patient operated upon the urine has passed through the natural passage, without at all coming through the wound. Mr. Lawrence says he has met with one similar case before; he says also that he will never again operate on a patient with diseased prostate, by the lateral method.

I have seen a case of extensive phagaedenic ulceration successfully treated by the application of strong nitric acid, and the mercurial fumigation. I attend the Eye Infirmary. Mr. Lawrence is the senior surgeon. A vast number of cases are here seen; there is nothing, however, particularly new in the treatment; Calomel is given in abundance in all the inflammatory affections, and what is new to me, they find it equally efficacious in strumous subjects. There are a great many cases of Amaurosis; the majority of them are deemed incurable; active depletion with calomel sometimes succeeds. In operations for cataract, Mr. Lawrence uses the common straight needle with cutting edges; in extraction he uses a knife invented by Prof. Beer of Vienna. He never operates on one eye when vision is tolerable in the other. I have seen a few cases of fistula lachrymalis cured by inserting the hollow tube. In general it does not produce much irritation. I have attended the last part of Sir Astley Cooper's lectures at the Boro,' as well as most of the operations at three hospitals. I observe that in operating for lithotomy he makes very small openings in the bladder; and in one case in particular, the orifice that he had made was so small, that in extracting the stone, he used so much force as actually to draw the patient from the table towards him. He afterwards said that as far as his experience went the more the parts were lacerated in this operation, the better the patients did; the event in this case proved the truth of his observation, which at first I was surprised to hear. I have since observed that patients certainly do as well under these circumstances as they do when the opening is large and the stone easily removed.

Sir Astley, you know, is opposed to Mr. Abernethy with regard to amputating in bad cases of compound fracture. A case occurred not long since at Guy's in which he thought it necessary to amputate; it was done in the evening. The next morning, in visiting him with his class, it was observed that the patient suffered greatly from nervous irritation; Sir Astley said, "Gentlemen, you see the state in which this man is in; what must have happened had the limb been allowed to have remained on." The man died in the course of the day, and on examining the stump a ligature was found tight around the nerve. It should be mentioned, however, that during the night succeeding the operation, some hemorrhage occurred, and the dresser tied, as he says, a muscular artery.

About two months since I saw Mr. Key, a junior surgeon at Guy's, take up the subclavian artery above the clavicle, for a subclavian aneurism. The great difficulty was in passing a ligature under the artery. All the different instruments for that purpose failed; it became necessary to enlarge the wound, in doing which the sac was opened; the hemorrhage stopped by pressure until the artery was tied, which was finally done by means of a common probe. The patient was on the table an hour and a half; he died three days later. The parts were removed, but I have never heard the result of the examination.

At St. Thomas's I have seen mostly amputations. In a case of lithotomy in which Mr. Green was operating, from the great hemorrhage he thought that he had cut the pudic artery, but Mr. Travers effectually stopped the bleeding by pressure upon the aorta. Mr. Lawrence mentioned to me a case in which Mr. Earle cut this artery, and that in a short time it stopped bleeding. By the politeness of Mess. Abernethy and Lawrence I have admission to the meetings of the Royal Society and the Medico-Chirurgical as well as the lectures at the College of Surgeons. From Mr. Lawrence in particular I have received the greatest attention as well as advice and assistance, altho I had no claims whatever upon him. I have also become acquainted with Mr. Brodie, who is the present lecturer at the College. His first course this year was upon digestion. He believes that the bile separates the chyle from the chyme; according to his experiments if the ductus choledochus is tied, no chyle is formed. He notices a curious fact with regard to the ligature of this duct, which is this, that altho the animal manifests icteric symptoms for some days, yet they gradually subside; if the duct be then examined, it will be found that the ligature has ulcerated through and remains envelloped in a quantity of lymph in the centre of the tube, while the bile flows freely around it. The same circumstance occurs after ligature of the intestine, according to Mr. Travers. Mr. Brodie's second course was on injuries of the head, but on this subject he has but repeated Mr. Abernethy's observations.

Sir Everard Home lectured on comparative anatomy; he began by detailing a number of microscopical observations he had made on the blood; he explains in a new manner the formation of vessels in coagula; he says that when the blood is effused, an extravasation of carbonic acid gas takes place, that in escaping it forms grooves or channels in the coagula, that the fluid blood naturally takes the same course, and thus by degrees new permanent vessels are formed. In the same manner he explains the formation of granulations from pus, which he says are the red globules divested of coloring matter. When this pus is exposed to the air, as on the surface of an ulcer, the carbonic acid gas escapes, a vacuum is produced, the channels through which it passed are immediately filled with fluid blood; thus it is that the globules of pus become vascular and assume the name of granulations. This grand discovery, says he, which has eluded the observation of the Hunters, has been left for him to bring to light. He is without exception possessed of the greatest share of vanity of any man I ever heard. People here place no confidence in his assertions; altho he holds the distinguished rank of President of the College. At a late meeting of the Medico-Chirurgical Society, I heard an interesting paper read by Mr. Earl, on artificial joints. He related three or four cases where he had performed the operation in different manners without any permanent success. He seemed to think, however, that the method proposed by Dr. Physick promised the most. Mr. Travers observed that he considered the local causes that prevented the union of fractured bones to be three: first, neglect to keep them perfectly still and in due apposition; second, a denudation of the periosteum,—in this case no long union can possibly take place; third, from the intervention of a portion of muscle or a piece of dead bone between the fractured surfaces. These he thinks are all the local causes; he don't believe in any specific or peculiar action in the affected parts which prevent union. But there are constitutional causes which may exist; in such cases the cure can be effected only by general treatment; no local application or operation can have any effect. The question was asked why it was that the humerus was the bone most generally affected in this manner? The same evening a paper was read giving an account of the performance of the Caesarean section. A woman in the 9th month of her pregnancy was run over by a carriage and instantly killed. The body was immediately carried to Guy's Hospital, and the operation performed by Dr. Blundell. Artificial respiration was kept up in the child for about 15 minutes from the time of its removal from the body of its mother; it then began to respire of itself; a little brandy and water was given to it, which decidedly produced a bad effect. It was that night given to a woman to nurse, but it died in about thirty hours from its birth. A case was also related of a woman in some part of Germany, who, near the time of labor, while sitting one evening with her family, suddenly heard the cry of a child proceeding from within her. Thinking that she was about thus unexpectedly to be delivered, she immediately sent for her accoucher, but on his arriving no pains had come, neither did the patient feel the least uneasiness, but the child continued to cry. Upon examination the os uteri was found not at all dilated. She continued in this state a number of days, the cries of the child being occasionally distinctly heard. At last labor pains came on and delivery was naturally effected. No comment was made on this singular case, which, if true, militates strongly against our commonly received notions of foetal existence.

There is at St. Thomas's hospital a remarkable case of hyrdocephalus: the patient is a young man about 25, the largest diameter of his head measures 33 inches, the enlargement has been gradual from infancy. His mental powers are not impaired; on the contrary he appears much more intelligent than the generality of hospital patients. The only difficulty he complains of is a giddiness in going up stairs or in ascending a hill; he says that he formerly had fits. Mr. Chandler, one of the old surgeons at this hospital, died about a fortnight since. Mr. Tyrrell, the junior surgeon at the Eye Infirmary, has been elected to his place. I have, during the spring, attended the lectures of Dr. Armstrong on the Theory and Practise of Physick; but in him I have been much disappointed. I have also attended Drs. Gooch and Conquest on Midwifery; they lecture in conjunction. Dr. Gooch is considered the best lecturer in this branch in London. I should have attended Dr. Haighton, but he has given up lecturing.

I have lately been to Scotland; while in Edinburgh I attended the Infirmary, but I saw nothing of particular interest there. Dr. Judson has been here with me during the winter and spring. We intend going very soon to Paris, where probably I shall remain some time.

I have troubled you with a very long and I doubt not tedious letter. If, on the contrary, it should prove in the least degree interesting, I shall consider myself fortunate in having afforded the slightest remuneration for the kindness and attention I have experienced from you during my professional pupilage. Allow me to assure you that it shall be my greatest object during my future professional career, so to conduct myself as to obtain and preserve your approbation. That you may continue through a long life to enjoy the high reputation you already possess; that health and happiness may continue to attend yourself and family is the sincere wish of your former pupil, who, with deference will ever be happy in considering himself your friend and servant.

George W. Otis, Jun.

Dr. John C. Warren.

If I could be of service in procuring you any books or preparations while in Paris; or if otherwise you should see fit to write me a letter directed to the care of Mess. Wells & Williams, Banquiers, Rue Faubourg Poissonniere No. 26, would reach me. Otis.

[Addressed] Dr. John C. Warren, Boston, Mass., America. Per Triton, Capt. Bussy.

AMBULATORY TREATMENT OF FRACTURE OF THE FEMORAL NECK.*

BY E. H. BRADFORD, M.D., BOSTON.

ORTHOPEDIC SURGERY needs a new definition of its scope. The original field of *l'orthopédie* (ὀρθος παιδευω), as Andral named the specialty, was confined to the prevention and cure of deformities; but later practice has changed its barriers. General surgeons have cured deformities, physicians have prevented them, and venturesome orthopedic surgeons have invaded the field of general surgery. This has led to unjust criticism and depreciation of the value of a specialty which fills an important place in the spectrum of surgical achievement. It has been suggested by the envious that the success in orthopedic surgery was often won by men who, ill-trained and incompetent as surgeons, exploited themselves and concealed their lack of knowledge through the chronic character of the ailments treated, nature curing in spite of clumsy art.

On the other hand, one of the most influential of orthopedic surgeons claimed that his specialty was the only one in surgery fully justified by the nature of things. The achievements of the specialty are sufficient to refute the charge that it is the refuge of those who could never be surgeons. But it is important that those undertaking the branch of the work of the profession should understand clearly the character of the skill demanded and for which training should be sought.

The development of the art of surgery has been so great and the demand for technical skill so pressing, that surgery itself, but recently separated from medicine, has sub-specialized extensively. The dentist, the opthalmologist, the laryngologist and otologist are especially sought by the public on account of their special experiences, as are the gynecologist and urologist. The latter, however, may also be excellent, active general surgeons; but the status of the orthopedic surgeon is somewhat different, owing to the fact that he treats tediously chronic affections and must master many non-operative details. Dealing with the functions of activity and locomotion he is not trained to consider one organ alone; but must be familiar with remedies useful to relieve the disabilities of many varieties of tissues. The modern general surgeon trains his energies largely to operative skill. He needs to be able to meet an emergency or an urgent pathological condition with the exercising of highly trained skill planned to relieve or cure in a concentrated effort demanding quick energy, judgment and decision.

After his bold and responsible undertaking, the surgeon can leave the patient to the care of convalescent nursing. As was said by a prominent and successful surgeon, a patient not cured in a month was a reproach to be avoided. With the orthopedic surgeon the demand is different. He needs to face his responsibilities squarely and not to shuffle or dodge; in fact he must be a surgeon and a highly trained one; but he can and should be deliberate. He must husband and marshall all the recuperating forces of the patient for the restoration of perfect function, not for the mere saving of life. He may need to operate and, if so, he must operate with consummate skill and the least possible injury of tissue. A patient at the hands of a wise surgeon may not miss the loss of a slice of intestine, but the loss of a square inch of bone from the hand or foot may be a calamity.

To the orthopedic surgeon an operation is but one step in the treatment and not the cure-all or end-all of his undertaking, which may demand months of attentive skill.

For this reason he needs thorough training in other branches than technical surgery and if so equipped is justified in attempting to aid those afflicted with chronic surgical ailments. This special branch of surgery has by the accumulated experience of many years of observation and investigation added much to the common store of surgical knowledge. It has given precision to the methods for the operative cure of club foot, of rachitic deformities now easily and definitely curable by any properly trained general surgeon. It has added much to the medical understanding of the treatment of paralytic affections. It has given a sound, scientific basis for the successful management of cases of tuberculous bone and joint diseases. But there are many other directions in which surgery and the community can be aided by the study and services of surgeons trained as the orthopedic surgeon must be to the mastery of non-operative detail.

Orthopedic surgery in short is the branch of surgery which demands mastery in non-operative details.

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* Read at a meeting of the Surgical Section of the Suffolk District Medical Society.

Illustrative of what may be done by orthopedic surgeons, attention may be called to important aid given by the proper use of apparatus; the accompanying case may be cited.

The following case, in the excellence of the results obtained, deserves to be recorded. The patient, an employee at the Massachusetts Hospital School for Crippled Children, fell and sustained a fracture of the neck of the femur on February 18, 1918. Immediately after the accident and before the patient was moved from the place in which she fell, she was examined by the superintendent, Dr. Fish, by resident physicians of the hospital, and also by two physicians who happened to be present at a meeting of the Medical Advisory Board held at the institution. The case was later seen by Dr. Bradford. The diagnosis was clear from the presence of the usual symptoms of shortening, eversion, and crepitus; but to admit of no doubt the clinical symptoms of the injury were confirmed by the x-ray. As the patient was sixty-four years of age and older in her condition even than her years, the usual unfavorable results of this fracture from long confinement in bed and joint stiffness following long fixation threatened a serious affliction of permanent if not total disability to a dependent, working woman without home or resources. It was determined to avert such a calamitous outcome of the injury by ambulatory treatment, making use of the traction abduction appliance which had been found to be of great service at the Hospital School in the treatment of hip disease. This appliance, which may be defined as a perineal ring crutch with a traction attachment and an abduction arm pressing upon the side of the perineum opposite the fracture, furnishes more fixation at the hip than can be obtained by a plaster spica. It also provides a practical amount of abduction without the encompassing pressure of a plaster bandage, which causes atrophy of the fat, muscle, and, as has been shown by skiagram, also of bone tissue, and therefore is not favorable to bone healing. It has been found by experience at the Hospital School that the traction abduction splint, even in the acuter stages of hip disease, provides thorough traction and sufficient fixation to permit a painless change of position and motion in bed, and that locomotion with crutches is not only feasible, but beneficial, in the sub-acute stages and favors a better cure.

It was therefore thought that the apparatus might be useful in the treatment of this fracture; that traction would pull the fragments into place; furnish fixation; give the proper abduction and allow the patient to sit up and be moved from the bed without injury; that the pericapsular ligament and muscular fasciæ would be prevented from cicatrical contraction, preventing resulting joint stiffness; and that early crutch locomotion with splint protection would be made possible. The result justified the treatment. The patient was first placed upon the gas pipe bed frame and traction applied by the use of weights and pulleys; but within forty-eight hours, or as soon as the apparatus could be made, the traction abduction splint was substituted for traction bed weight and pulley traction and the patient allowed to move about and to be moved more freely. The pain and discomfort which were experienced the first night were controlled by the hypodermic administration of 1/12 of a grain of morphia, but at no time was any other medication indicated except an occasional mild laxative, and on February 28, ten days after the injury and eight days after the splint was applied, the patient sat up in bed to eat her supper. Seven days afterward, on March 7, she left her bed and spent part of the day upon a couch. Five days later, on March 12, she moved about her room in a crutch walking frame in which she had greater confidence than upon a pair of crutches. She soon became accustomed to the use of crutches, however, and in pleasant weather was able to be out-of-doors.

All traction was removed on April 15. Fifteen days later the splint was removed entirely at night and for short periods which were gradually increased each day until it was taken off altogether on May 18, three months after the injury.

The patient gradually regained the use of her leg. In the autumn she felt able to resume her work and re-entered the employ of the hospital. She can flex the thigh to a right angle, move the joint freely, and walk several miles without limping or the slightest discomfort. There is no appreciable shortening—in fact, she considers herself fully recovered and capable of work, which keeps her upon her feet eight or nine hours daily.

Two other cases, coming under the writer's observation in consultation, have since been treated by the same method; one a fracture of the neck of the thigh in a woman of forty, the other a fracture of the femoral shaft in a woman of seventy-five, and the results in each have been most gratifying.

NOTE: The patient was shown at the February meeting of the Surgical Section of the Suffolk District Medical Society.

Book Reviews.

Physiology and Biochemistry in Modern Medicine. By J. J. R. MACLEOD, M.B., assisted by Roy G. PEARCE, B.A., M.D., and others. With 233 illustrations, including 11 plates in colors. St. Louis: C. V. Mosby Company. 1918.

The need of the clinician for deeper appreciation of fundamental subjects has resulted in a sequence of texts designed to interpret the more important phases of biochemistry, physiology, and pathology. In Professor Macleod's book we have the first attempt on the part of a physiologist to do this, other volumes of similar nature having come from clinicians. There is no possible doubt as to the value of the intention behind such publications, and there is equally no doubt as to the extreme difficulty attendant upon carrying out such purpose. Knowledge of fundamentals must be coupled with a selective capacity of high order.

Professor Macleod opens his book with nine chapters upon the physical chemistry of the human body. The treatment is extremely brief, covering but 84 rather readable pages. There is no attempt to do more than present the briefest sort of outline of such subjects as "The Principles Involved in the Determination of Hydrogen-ion Concentration," "The Regulation of Neutrality in the Animal Body and Acidosis," "Colloids," and "Ferments, or Enzymes." One often wonders in reading such summaries just how much could be gained from them if one was unbacked by a certain amount of preliminary information and above all by a certain habit of mind, as such material needs more than willingness for its assimilation.

When one attempts to analyze the chapters in the book dealing with the special systems of the mammalian body, he is too steadily confronted with the feeling that he is reading a rather well written text-book of physiology or biochemistry in which is no steady compulsion to feel the intimate relation of these subjects to modern medicine. This is peculiarly true in the discussion of the circulation. One feels here that the chapters upon control of the circulation should be followed by specific examples of the manner in which this control operates under conditions of exercise and activity, with indications as to the most vulnerable points in the entire mechanism. Similarly, in the chapters upon the nervous system, one finds too little direct application of physiological knowledge.

It is perhaps unfair to demand that the authors of such a book detail modern physiology and biochemistry and at the same time indicate directly how such information should be used. Such, however, would seem to be the duty of a text in applied science. One needs to gain from it not only statements of what should be applied but how it should be applied.

In general details of arrangement and manufacture, the book leaves little to be desired. It would be more useful, perhaps, to give larger bibliographies on certain subjects; but in the main, the selections are good and will serve as a useful starting point for readers who desire to follow particular subjects in greater detail.

War Time Nerves. By HERBERT J. HALL, M.D. Boston and New York: Houghton Mifflin Company. 1918.

The present war is testing the nervous strength of the nation, and the strain is being felt not only by the fighting man, but also by the men and women who remain at home. How is the nation to maintain its normal vitality and efficiency? A solution of this problem is offered by "War Time Nerves," written by a man whose profession, pursued with a sympathetic understanding of his patients, has enabled him to offer invaluable suggestions to persons suffering from nervous overstrain.

The soldier or the sailor, witnessing daily the cheapness of material life, is forced to a recognition of the stabilty and grandeur of spiritual life and feels strengthened by it. Likewise, the man at home, whose vitality may have been lowered until the sense of personal failure almost overwhelms him, may be made more efficient and happy if he can be shown how to rise above his physical limitations and feel that his life, if he makes the best of it, is a small part in an eternal purpose. The method of treatment varies with the patient, whose physical and spiritual life should be carefully observed. Often the removal of some fear or misconception, the establishment of a life purpose, or instruction in some manual art may serve to relieve the condition. But the author's particular message is his plea for a new vision, for the ability to regard actual facts as symbols of a higher and finer life. At this time especially, it is in this guidance of the spirit, in addition to physical assistance, that physicians can render the greatest service to humanity.

THE BOSTON
Medical and Surgical Journal
Established in 1812

An independently owned Journal of Medicine and Surgery published weekly under the direction of the Editors and an Advisory Committee, by the Boston Medical and Surgical Journal Society, Inc.

THURSDAY, JULY 3, 1919.

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An editor will be in the editorial office daily, except Sunday, from twelve to one p.m.

Papers for publication, and all other communications for the Editorial Department, should be addressed to the Editor, 126 Massachusetts Ave., Boston. Notices and other material for the editorial pages must be received not later than noon on the Saturday preceding the date of publication. Orders for reprints must be returned in writing to the printer with the galley proof of papers. The Journal will furnish free to the author, upon his written request, one hundred eight-page reprints without covers, or the equivalent in pages in the case of articles of greater length.

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MASSACHUSETTS COMMISSION FOR THE BLIND.

THE Massachusetts Commission for the Blind undertakes to find and register new cases of blindness, to follow up cases which have already come to its attention, to adopt whatever measures may be possible for the prevention of blindness, to give specialized education, and to promote the efficiency and happiness of the blind by whatever means may be possible and practical. The twelfth annual report for the year 1918 states that the year has been a particularly difficult one because war conditions have caused the interest and financial support of the public to be diverted. One advantage, however, to be gained from the war is the fact that the return of about thirty-five American soldiers who have been blinded by the war has caused many to reflect more deeply on the problems involved in educating the blind.

The Commission adopted a new policy last year. Five totally blind workers were appointed to the staff, to make it possible to determine whether the blind social worker can produce results equal to the work done by normal workers. Thus far, the experiment has seemed to justify itself. It is the policy of the Commission to employ the blind in various departments of work whenever it is possible to do so.

In order to give all blind individuals a knowledge of the Commission's purpose, a survey has been made by three blind workers in order to register all the blind of the state. Names have been received from overseas of the poor, oculists, and local charity organizations, and efforts have been made to investigate and determine the educational, industrial, financial, and social status of the individual. A survey of Worcester, Bristol, and Norfolk Counties showed a total registry of 2,415 names. In order to further the relief of the blind, the Commission has recommended to the state, legislation to meet the needs of this class.

Among the children of Massachusetts, there is a group of about five hundred who will later become a burden to the community unless proper education is provided for them. For these children who are not totally blind, a special class was organized in 1913 under the Boston School Board. There are now ten classes of this sort in Massachusetts, with a total enrollment of one hundred and thirteen children. It has been estimated that about one child in every thousand requires the methods of the sight-saving class. Massachusetts has classes at present in Boston, New Bedford, Cambridge, Lynn, and Worcester. Through the Massachusetts Charitable Eye and Ear Infirmary, medical and surgical care has been provided for about five hundred children.

The work of the Commission toward the prevention of blindness has placed before the public facts concerning the common causes of needless blindness, preventive and remedial measures, resources of the Commonwealth for helping the blind, and the essential matters that teachers of the blind should know regarding their work and education.

Home teaching of the adult blind has been increased by an additional appropriation of $1500. The total enrollment during 1918 was 274, and the amount of money earned by these pupils amounted to $799.04. A special course in advertising and salesmanship was given, with gratifying results, at the Thomas Park House by Professor Harold Whitehead.

The industries in Cambridge which have afforded training for the blind include chiefly the broom, rug, wundermop, dowel, basket and rattan industries. In Worcester and Lowell, the principal industry is chair caning. The Woolson House industries have afforded ample opportunity for work in spite of unsettled conditions and increased cost of materials. An experiment has been made by the Commission to determine the chance which a blind person might have in various industries in competition with the seeing. One hundred factories, including leather, paper, envelope, corset, drug, glue, ammunition, shoe, and candy concerns and various machine shops, were visited. As a result, fifty blind workers were given positions, and forty-nine made good. This is a greater proportion than would be expected even among seeing workers. Regular employment has been secured for two hundred and eleven persons.

This report indicates the magnitude of the problem of dealing with the blind. The Commission deserves commendation for its faithful service during the past year, and merits increased interest and support from the general public.

UNITED STATES PHARMACOPOEIAL CONVENTION.

The attention of physicians is called to the tenth decennial United States Pharmacopoeial Convention to meet in Washington, D. C., on the second Tuesday of May, 1920, at ten o'clock A.M. at a place to be named later. All competent and designated bodies and authorities are asked to name and issue credentials to a fixed number of delegates, who are requested to forward them promptly to Noble P. Barnes, M.D., The Arlington Hotel, Washington, D. C.

The following By-Laws of the United States Pharmacopoeial Convention provide information with which physicians should be familiar:

Article VIII, Chapter 1, of the By-Laws of the United States Pharmacopoeial Convention provides that the President:

"Shall issue, on or about the first of May of the year immediately preceding that of the decennial meeting, a notice inviting the several bodies, entitled under the Constitution to representation therein, to send delegates to the next meeting. He shall repeat the notification, eight months later, and shall request the medical and pharmaceutical journals of the United States to publish the call for said meeting."

Article II of the Constitution provides:

"The members of the United States Pharmacopoeial Convention, in addition to the Incorporators and their associates, shall be delegates elected by the following organizations in the manner they shall respectively provide: Incorporated Medical Colleges, and Medical Schools connected with Incorporated Colleges and Universities; Incorporated Colleges of Pharmacy, and Pharmaceutical Schools connected with Incorporated Universities; Incorporated State Medical Associations; Incorporated State Pharmaceutical Associations; the American Medical Association, and the American Chemical Society; provided no such organization shall be entitled to representation unless it shall have been incorporated within and shall have been in continuous operation in the United States for at least five years before the time fixed for the decennial meeting of this corporation."

Section II of the Constitution provides:

"Delegates appointed by the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, and the Surgeon-General of the United States Marine Hospital Service, the Secretary of Agriculture, the Secretary of Commerce and Labor, the Association of Official Agricultural Chemists, the Association of State and National Food and Dairy Departments, the National Wholesale Druggists Association, and the National Dental Association, and the organizations not hereinbefore named which were admitted to representation in the Convention of 1900, shall also be members of the corporation. Each body and each branch of the United States Government above mentioned shall be entitled to send three delegates to the meetings of this corporation. But no such delegates as are provided for in this article shall be members until their credentials shall have been examined and acted upon as provided for by the By-Laws."

This meeting of the United States Pharmacopoeial Convention of 1920 is announced nearly a year in advance because it will mark the first century of the Pharmacopoeia and will be the most important of the decennial meetings.

A STUDY OF THE INFLUENZA EPIDEMIC.

A STUDY of the recent epidemic of "Spanish" influenza, published in February by the French Scientific Academy and in the issue of the *Lancet* for April 19, has been contributed by Dr.

J. Dolley, who believes that he has discovered and cultivated the germ of the so-called "Spanish" influenza. He believes it to be a small bacillus of less than a millionth of a millimeter in size, intermediary between the bacillus pestis and the chicken cholera bacillus. In discussing the symptomatology of the disease, Dr. Dolley expresses his belief that symptoms which are likely to manifest themselves during the course of development are diminution of arterial tension, irregularity of and variations in the strength of the pulse, weakening and even imperceptibility of the first sound of the heart, precocious cyanosis of the fingernails, enlargement of the spleen, slight enlargement of the liver, "Sergent's white line," considerable asthenia, slight delirium when temperature is very high, irritability contrasting with the intellectual torpor, signs of the lungs being affected, but in no precise locality, frothy expectorations which contain thin streaks of bright red blood, slight diarrhoea, urine clear and abundant, hemorrhage in any of the mucous membranes, and cardiac syncope.

The author believes that this symptomatology points to a specific disease for the reason that the majority of these symptoms are noticeable in practically all cases of "Spanish" influenza, and all of them may be reproduced in man by inoculation with the expectorations mingled with blood, produced by persons suffering with the disease.

In support of his theory, Dr. Dolley cites his own personal experience. On October 27, 1918, his thumb was bitten by a rat which he was smearing with the expectorations of a patient who was affected seriously by the disease. The following day, cyanosis was noticeable in the fingers of the left hand, the beating of the pulse in the radial artery was no longer perceptible, there was a sensation of intense cold, and fits of fainting and bradycardia occurred. These symptoms continued, and on November 15th, a short frequent cough producing a few frothy expectorations containing fine streaks of bright red blood, became noticeable. The symptoms increased until on December 12 his condition became critical, and a serotherapic treatment was begun.

During the first stage of the disease, Dr. Dolley succeeded in isolating a coccobacillus in the swelling on the thumb; and during the final stage, it was rediscovered in his venous blood. He observed that the coccobacillus could be successfully isolated in the case of a great many individuals affected by the epidemic, and that it generally disappeared from the blood in circulation when complications existed and rise in temperature took place. He believes that certain symptoms of this epidemic resemble haemorrhagic septicaemia, and therefore employed a serum obtained with a microbe of this group, for example, the anti-plague serum. He states that the first injection of twenty-five cubic centimeters of anti-plague serum resulted in the cessation of fainting fits and the disappearance of other circulatory phenomena. The disease reached such an advanced stage in some cases that it was necessary to use the contents of ten bulbs in order to effect a complete cure. Dr. Dolley thinks that patients suffering with pulmonary complications and nervous forms, such as ataxoadynamia, can be treated successfully with this same serum. Since the time when he adopted this treatment in the form of intravenous injections, for patients suffering with syncope, and in the form of subcutaneous injections in other cases, not one of his patients has died as a result of "Spanish" influenza.

Dr. Dolley concluded from his experiments with mice that this serum afforded protection against innoculation by the coccobacillus of influenza, and that it could even cure mice who were already affected by the disease.

MEDICAL NOTES.

INFLUENZA IN ALASKA.—An epidemic of influenza is spreading among about five thousand persons in Alaska, most of whom are employed in the salmon canning industry. In order to relieve the present distress and to check the disease, naval ships carrying surgeons and large quantities of medical supplies have been dispatched to the Bristol Bay region. Nearly all the naval medical men available on the northern Pacific Coast are working among the natives, and additional supplies and doctors are being sent to Puget Sound. The hospital ship *Comfort* left Charleston, South Carolina, on June 9, with the intention of sailing to Alaska if the epidemic should not be under control by the time the vessel reached the west coast. The southeastern portion of Alaska has not been seriously affected by the epidemic. Deaths in Bristol Bay sections have been increasing at an alarming rate, and sixty persons died in one small community in one day. An appropriation of $100,100 for the relief of the Alaska influenza sufferers was included in the general deficiency appropriation bill by the Senate Appropriations Committee.

Hospital Work in the Balkans.—American, British, French, and Greek doctors are endeavoring to prevent an outbreak of the plague in the region extending along the north shore of the Aegean Sea, from Salonica to Constantinople. Reports from the American Red Cross state that the condition in Drama, Serras, Kavalla, Xanthi, and hundreds of other small villages are exceedingly unsanitary. From the Red Cross warehouse at Kavalla, housing three hundred families of refugees, from five to a dozen persons who had died of typhus were removed each day last month. Among the children of Eastern Macedonia the conditions are particularly pitiful. Two members of the American Red Cross have died in the Balkans during the past month, and several other nurses have been ill with typhus. Serums against disease are injected in thousands of peasants, and "delousing" baths are given to those living in the crowded centers.

A recent report from the doctors from the American Women's Hospitals who are now in Serbia and Albania states that in some parts of the country four years have passed without the visit of a physician. Dr. Keyes, who directs a hospital staffed entirely by women at Monastir, has reported that the work is increasing and that the daily dispensary cases often number from 230 to 250 people. Typhus is considered well under control. The number of accidents from explosives is great, and one ward is entirely devoted to these cases.

Decoration of American Women for Medical Service.—A number of American women physicians from the American Women's Hospital at New York, who are now assisting the American Red Cross in caring for the sick and destitute in Serbia, Montenegro, and Albania, have been cited for conspicuous service. They are Dr. Marjorie Burnham, Dr. Mary H. Elliot, Dr. Harriet M. Gervais, Dr. Alberta M. Greene, Dr. Lulu Peters, Dr. Marion C. Stevens, Dr. Regina F. Keyes, Dr. Mabel Flood, and Dr. Catherine M. Cook.

The service rendered by Dr. Keyes is especially to be commended. At the first call from Greece, she went to Vodena, where with a few medical supplies she organized an emergency hospital. She had no operating tables, no sterilizers, no beds, no stove, nothing except her small kit of surgical instruments and a few pounds of medicines. An operating table was built of a few dry-goods cases and some iron beds were borrowed from an abandoned military hospital. Old gasolene cans were utilized as stoves, dishes, sterilizers, and everything needed to aid in an emergency. With this equipment, with the aid of Dr. Mabel Flood and two American nurses, Dr. Keyes opened the first American hospital in Northern Greece. During the attack of the French and Serbians on the Bulgarians, Dr. Keyes served the French Army as regimental surgeon. Dr. Keyes is stationed at Monastir, Serbia, at the present time.

A second relief unit under the auspices of the American Women's Hospitals is expected to sail for service in Serbia before July 1. Dr. Mary M. Crawford of New York will be in charge of this unit.

Undernourished School Children.—It has been shown by the New York City Health Department that the school children in that city have shown a marked increase in undernourishment during the last three years. Statistics show that since 1914, five per cent. were undernourished: in 1915, six per cent; in 1918, nineteen per cent. This is due to insufficient or wrong feeding. Since the beginning of the war, the average increase in wages has been eighteen per cent., while the average increase in the cost of food has been nearly one hundred per cent. At the present time, one child out of five in New York City is seriously undernourished, and at least two additional ones out of every five are classed as being between good health and an undernourished condition.

Federal Health Program.—On behalf of the War Service Committee of the American Hospital Association, Dr. S. S. Goldwater has complained that the Treasury Department, to which President Wilson referred the proposed Federal Health Program, has taken no steps to complete the task. On July 1, 1918, all sanitary or public health activities carried on by any government bureau were given over to the Treasury Department. Among the recommendations presented by the members of the conference were the appointment of an Assistant Secretary of Health for the duration of the war and for the creation of a Committee on Public

Health. Following are some of the more important projects anticipated:

The establishing of standard procedures for the control of communicable diseases, including reporting diagnosis, treatment, and sanitary supervision, and the adoption of these standards by local authorities. Particular attention is to be paid to malaria, hookworm disease, typhoid fever, tuberculosis, and the communicable diseases of childhood.

A comprehensive program for the hygiene of war industries is to be prepared and put into effect. Among the matters for special attention should be adjustment of the hours of labor to obtain maximum production without damage to the health of the workers. Special attention should be given to the diseases which seriously reduce the efficiency of farm labor in southern states.

Standards for maternity care and for the preservation of the health of infants and children should be prepared and promulgated. A plan should be prepared and put into effect for the registration and after-care of men enlisted or drafted for military service and subsequently rejected or discharged on account of mental or physical defects. This should include, for example, extension of facilities for the sanitarium and home care of tuberculosis victims and for hospital and home treatment for mental defectives and drug addicts.

To insure the quality and make reasonable the cost of essential drugs and biological products, standard methods of manufacture and standards of potency should be developed and enforced. A comprehensive propaganda of health education adapted to various localities and all classes of people should be developed.

Steps should be taken to provide for the national registration of deaths, births, and cases of preventable diseases. A program should be prepared for maintaining an adequate supply of properly trained sanitarians, physicians, and nurses during the war. The means for the extension of existing training facilities should be provided by the government.

The program was prepared by Dr. John F. Anderson, formerly director of the United States Hygienic Laboratory; Dr. Haven Emerson, formerly health commissioner of New York; Dr. W. A. Evans, formerly health commissioner of Chicago; Lee K. Frankel, vice-president of the Metropolitan Life Insurance Co.; Dr. A. W. Freeman, of the Ohio state health department; Dr. Goldwater; Porter Lee, of the New York School of Philanthropy; Dr. W. S. Rankin, state health secretary of North Carolina; Dr. E. G. Williams, state health commissioner of Virginia, and Dr. C. T. A. Winslow, professor of public health at Yale University.

INFLUENZA AT SAN QUENTIN PRISON, CALIFORNIA.—During 1918, there were three distinct epidemics of influenza, in April, October, and November, at the California State Prison. From an analysis of these epidemics in a recent Public Health Report, it seems probable that each epidemic was introduced by the entrance of a recently infected prisoner. The disease, thus brought into crowded, poorly ventilated rooms, spread quickly because of the close contact of the inmates. The second epidemic was less severe than the first, and the third was less severe than the second. In the first and second epidemics, the disease attacked prisoners chiefly between the ages of twenty and twenty-five; in the third, more persons between the ages of twenty-five and thirty, and forty and forty-five became infected. It was discovered that the spread of the disease could be most effectively combated by hospitalization, quarantine, isolation, and closing of congregating places. Men who entered the prison after the April epidemic seemed to be more susceptible to the disease than those who had entered previously. Of those who contracted influenza during the first epidemic, five per cent. developed tuberculosis.

RED CROSS APPEAL.—The following statement, relating to an appeal to be made by the American Red Cross next November, has been issued recently by Dr. Livingston Farrand:

"Appalling conditions in the countries of Eastern Europe, imposing on the American Red Cross obligations additional to those assumed during the period of the world war, and the continuance of activities in connection with the already outlined domestic program of the Red Cross, makes necessary an appeal to the people of America for further funds to carry on the work for the relief of humanity.

"It has been decided to make this appeal in the autumn, in a period of two weeks, culminating on the eleventh of November, the anniversary of the signing of the armistice—a season when the American people may properly give manifestation, through contributions to their Red Cross, of their thankfulness for deliverance from added horrors of war which have fallen upon nations less fortunate.

"At present the American Red Cross is bringing to a close its activities in the countries of Western Europe, and with the withdrawal of American troops from the war zone its work for the Army abroad will end automatically. Disease and suffering of the most heartrending character, however, are calling for relief in other fields. The new international organization of Red Cross societies is preparing to deal with relief and health problems throughout the world in future years, but there are immediate emergencies which require the aid of the agencies already established. Foremost among these agencies is the American Red Cross. At present emergencies are being met with all the resources available, but it is apparent that the imperative calls for assistance for the next year or more will make additional funds necessary.

"It is anticipated that the generous heart of the American people will respond to the appeal to the full extent of the needs that will present themselves."

National Society for the Study and Correction of Speech Disorder.—A meeting of the National Society for the Study and Correction of Speech Disorder will be held in Milwaukee, Wisconsin, on July 4, 1919. Previous meetings in Cleveland were held on May 19 and May 30. The next meetings of the Society will be held in Milwaukee, on July 4, 7, and 30; in Athens, Ohio, on August 4 and 29; in Lowell, Massachusetts, on September 8; and in Cleveland on October 6. The meetings on July 4 will be held in conjunction with the National Educational Association.

Notifiable Diseases in the United States.—The United States Public Health Service has published in Reprint No. 505 from the Public Health Reports a summary by months and states of the prevalence of the following notifiable diseases in the United States during 1917, with tables showing mortality rates of the various diseases: anthrax, cerebrospinal meningitis, diphtheria, malaria, measles, poliomyelitis, rabies in man, Rocky Mountain spotted fever, scarlet fever, septic sore throat, smallpox, tuberculosis, and typhoid fever.

88,000 Cases of Tuberculosis in the Army.—It has been announced by the National Tuberculosis Association that sixty-two thousand men were rejected for service in the national army because they were suffering from tuberculosis; approximately twenty thousand were rejected for the same reason at the army camps; and nearly six thousand who are now still in service are being cared for in the army's special tuberculosis hospitals. The National Tuberculosis Association is coöperating with the surgeon-general's office in following up each rejected case, and fifteen hundred state and local societies are providing necessary care and treatment.

Free Treatment of Venereal Diseases.—A list of hospitals and dispensaries in the United States where those infected with venereal diseases may secure treatment free of charge has been printed in the Public Health Report for May 2, 1919.

Venereal Disease Work in New York.—The sum of four thousand dollars has been allowed monthly by the State Department of Health for conducting anti-venereal disease work in New York City. On the basis of this allowance, the Department has established ten clinics for the treatment of venereal diseases in quarters already occupied as tuberculosis clinics. Hours have been arranged so as not to interfere with the work of the tuberculosis clinics; four daily sessions and two evening sessions will be held each week. Nine of the clinics will have purely advisory and diagnostic functions; one, however, the Chelsea Clinic, will administer free treatment to all cases of venereal diseases among indigent patients. These clinics will conduct preventive and educational work on a district basis, assigning to each district two clinic physicians, a lecturer, and a nurse. The *Weekly Bulletin* of the Department of Health of New York City contains a list of these clinics, with the hours of attendance.

Division of Venereal Diseases.—There are two hundred and fifty clinics being operated by, or in conjuction with, the United States Public Health Service, Division of Venereal Diseases. A summary of the activities of thirty-three of these clinics has been published in a recent Public Health Report. During the month of March, 2,869 new cases of venereal diseases were admitted, making a total of 11,931 patients under treatment. The average daily attendance during March was 47.9, as compared with 32.7 for the month of February. A large number of these clinics are no longer under the absolute control of the Government and the Red Cross, but are now controlled and financed by state and local health departments.

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending June 7, 1919, the number of deaths reported was 232, against 216 last year, with a rate of 15.19, against 14.36 last year. There were 29 deaths under one year of age, against 39 last year.

The number of cases of principal reportable diseases were: Diphtheria, 51; scarlet fever, 48; measles, 34; whooping cough, 11; tuberculosis, 47.

Included in the above, were the following cases of non-residents: Diphtheria, 2; scarlet fever, 12, tuberculosis, 4.

Total deaths from these diseases were: Diphtheria, 2; whooping cough, 2; tuberculosis, 16.

Influenza cases, 7; influenza deaths, 1.

INCREASE IN TUBERCULOSIS IN BOSTON.—It is the belief of Seymour H. Stone, secretary of the Boston Association for the Relief and Control of Tuberculosis, that tuberculosis is increasing in Boston. He is reported to have stated that this is probably due in part to the great increase in work and the high wages paid during the war; for men and women who should have been under treatment at hospitals, in sanatoria, or at home, have been tempted to work, even at the expense of their health.

Possibly other reasons for the increase in the Tuberculosis death rate from 13.82 out of every 10,000 residents of Boston in 1915 to 15.12 in every 10,000 in 1918 are the high cost of food and the lack of physicians and nurses due to war conditions. Mr. Stone has emphasized the importance of keeping before the public the importance of good health as a defence against tuberculosis, and the desirability of seeking early competent advice.

HARVARD CANCER COMMISSION.—Dr. Robert B. Greenough has been appointed director of the Cancer Commission of Harvard University. Other members of the staff are: Dr. Channing C. Simmons, secretary; Roger Pierce, treasurer; Dr. James H. Wright, pathologist; Dr. William Duane, research fellow in physics; Dr. William T. Bovie, research fellow in biology; Dr. Henry Lyman, research fellow in chemistry; Dr. Ernest W. Goodpasture, research fellow in pathology.

The following physicians and surgeons have been appointed to the staff of the Huntington Memorial Hospital for the coming year: Surgeons, Dr. Robert Greenough, Dr. Channing Simmons, and Dr. Edward H. Risley; assistant surgeon, Dr. George G. Smith; surgeon to outpatients, Dr. George A. Leland, Jr.; consulting physicians, Dr. Henry Christian and Dr. Francis W. Peabody; physician, Dr. George Minot; laryngologist, Dr. Daniel Greene; assistant physician; Dr. Arlie V. Bock.

GIFT OF $5,000 TO BROCKTON HOSPITAL.—By the will of the late Edson B. Keith of Brockton, $5,000 has been bequeathed to the Brockton Hospital.

PREVENTION OF INDUSTRIAL DISEASE.—The Massachusetts Board of Labor and Industries has appointed Dr. Wade Wright of Boston, who is now medical chief for the Red Cross in Poland, to take charge of the health conditions in industry throughout the state. Dr. Wright graduated from the Harvard Medical School in 1914, and since that time has been engaged in the study of industrial problems in connection with his work at the Massachusetts General Hospital, where he organized an industrial clinic. When the United States entered the war, he went to Europe with the Massachusetts General Hospital unit, but was later transferred by the Government to the American Red Cross. He is now acting as medical chief of the Red Cross for Poland and is devoting a large portion of his time to the study of reconstruction work for disabled soldiers. In February, he visited Warsaw and the Bolshevik and Ukranian fronts for the purpose of investigating conditions there. Dr. Wright's work includes medical and general relief, sanitary operations, delousing and sterilization of clothes, civilian feeding, canteen service, and the distribution and sale of food. He has established a system of mobile relief units, consisting of doctors, nurses, aids, and military guards, in order to carry out the relief work. At the present time, his headquarters are at Bialystok.

Dr. Wright will leave Poland and take up his work for the Massachusetts Board of Labor and Industries about the first of August. His work will cover seventeen districts in the state. There are now twelve inspectors who will work under his direction, but it is probable that the number of inspectors will be increased.

The Massachusetts Medical Society.

PROCEEDINGS OF THE SOCIETY.

First Day, June 3, 1919.

CLINICS and demonstrations were held during the morning at the principal hospitals of Boston. All of the exercises of the anniversary were held at the Copley-Plaza Hotel, Boston, beginning with the annual meeting of the Supervisors June 3, at 11.30 a.m., followed by the annual meeting of the Council at noon, 116 Councilors being present. Meetings of the Sections of Medicine, Surgery, and Tuberculosis were held in the different halls of the building. A detailed and corrected program of the meetings and the officers of the Sections is to be found in the BOSTON MEDICAL AND SURGICAL JOURNAL for May 29, 1919, Vol. clxxx, pages 626, 627.

The following officers of the sections were elected by the sections for the ensuing year:

Section of Medicine: *Chairman*, Fresenius Van Nüys, Weston; *Secretary*, Lewis Webb Hill, Boston.

Section of Surgery: *Chairman*, Robert B. Greenough, Boston; *Secretary*, Irving J. Walker, Boston.

Section of Tuberculosis: *Chairman*, Henry D. Chadwick, Westfield; *Secretary*, E. O. Otis, Boston.

Section of Hospital Administration: *Chairman*, John T. Bottomley, Boston; *Secretary*, Stephen Rushmore, Boston.

The Council established a Section of Diseases of Children, June 3, 1919, and appointed these officers for the year 1919-1920: *Chairman*, John Lovett Morse, Boston; *Secretary*, J. Herbert Young, Newton.

The Shattuck Lecture was delivered in the evening by Dr. Francis G. Benedict of Boston on the topic: "Energy Requirements of Children from Birth to Puberty."

Following the lecture there was music, and refreshments were served in the ballroom.

Second Day, June 4, 1919.

The Society met at the Copley-Plaza Hotel for the exercises of the one hundred thirty-eighth anniversary. The President, Samuel B. Woodward, of Worcester, was in the chair and one hundred and fifty Fellows and guests were present during the morning. The minutes of the last meeting were read and accepted. The Secretary announced that during the past year the Society had lost by death 75 Fellows, by resignation 9, by deprivation of the privileges of fellowship 15, total loss 99. The Society had gained 100 Fellows as follows: restoration by the Council 8, readmitted by the Censors 5, new Fellows 87, total net gain 1, making the membership of the Society, June 4, 1919, 3690.

The Secretary read the findings of the Board of Trial in the case of George Henry French as follows:

Boston, Nov. 20, 1918.

We, the Board of Trial duly appointed to consider the charges against George Henry French, of Somerville, for gross violation of the By-laws and Code of Ethics of the Society, and for conduct unworthy of an honorable physician, having met in accordance with appointment at the time and place specified, and having heard the evidence and seen and heard the accused in refutation of said charges, find that he is guilty of the charges.

And we do therefore adjudge and determine that said George Henry French be expelled from his membership of The Massachusetts Medical Society.

Board of Trial
E. S. BOLAND, *Chairman*,
J. E. SIMPSON,
A. G. GRIFFIN,
M. V. PIERCE,
F. H. THOMPSON, SR.

It was moved and seconded and unanimously voted that the findings of the Board of Trial be approved and that George Henry French be and he hereby is, expelled from his membership in the Massachusetts Medical Society, seventy-three persons being in the audience at the time the vote was taken.

Dr. F. G. Wheatley spoke of the organization of the Medical Veterans of the World War. He stated that he had some copies of the constitution and by-laws of this proposed organization and also application blanks which were to be filled out and sent to Col. F. F. Russell, M.C., U.S. Army, at Atlantic City, as soon as possible. The Secretary of the Society had a supply of blanks and would be glad to furnish them to any of the fellows or those who were entitled to join the organization; that he, Dr. Wheatley, had already sent blanks to the members of the draft boards in Massachusetts, and had published an account of the organization and a copy of the blank in the BOSTON MEDICAL AND SURGICAL JOURNAL of May 29, 1919.

The President introduced Dr. H. G. Anderson of Waterbury, Conn., and Dr. Freeman A. Tower of Derry, N. H., who brought the greetings of their respective state medical societies to the Massachusetts Medical Society.

Dr. Emily Clark-MacLeod spoke of the American Women's Hospitals organized under the National Women's Association for War Work by the 6000 women physicians who had been unable to serve actively in the ranks of the World War. She said that they had four hospitals in France, two in Serbia and one in the near East; the organization was affiliated with the Red Cross, had been approved by the Governments of the United States, France, Serbia and Greece; it had never spent 10% of the money collected. They are preparing to send two mobile hospitals into Serbia to assist the Serbian people. She would like to have the backing of the medical profession in the work that the women are doing.

The papers were read according to the program and were discussed by Dr. Lincoln Davis, Dr. Wyman Whittemore, and Dr. E. A. Codman.

At 12 o'clock noon the Annual Discourse was delivered by Dr. Samuel Crowell of Dorchester on the subject "The Reflections of a Physician Who Stayed at Home." The thanks of the Society were given to the orator by vote.

In the afternoon the Section of Hospital Administration met at the Hotel and listened to the papers on the program.

In the evening the Annual Dinner was served in the ballroom of the Copley-Plaza Hotel to 482 Fellows.

The President spoke on the need of medical men in the halls of legislation and introduced His Excellency Calvin Goolidge, Governor of the Commonwealth, Chief Justice Arthur P. Rugg of the Massachusetts Supreme Court, Rev. Thomas F. Davies of Springfield, Bishop of Western Massachusetts, and Dr. Joel E. Goldthwait of Boston, Colonel Medical Corps, United States Army, in charge of orthopedic and reconstruction work.

WALTER L. BURRAGE,
Secretary.

ADMISSIONS REPORTED FR M JUNE 18, 1918, TO JUNE 4, 1919.

Year of Admission.	Name. Residence.	Medical College.
1919	Alton, Benjamin Harrison, Worcester	11
1919	Anderson, Frank William, Roslindale	11
1919	Andrews, Sumner Chever, Cambridge	11
1919	Applebaum, Jacob, Dorchester	12
1919	Audet, Charles Henry, Lynn	32
1919	Baker, Horace Mitchell, Lowell	11
1919	Bill, José Penteado, Wayland	11
1919	Birdsall, Clarence Harlow, Haverhill	12
1919	Bottero, Giovanni Domeniço, Brookline	18
1919	Boyd, James Francis, Brockton	12
1919	Brett, Afley Leonel, Boston	11
1918	Butler, Edmund John, Cambridge	11
1919	Calderwood, Edward Swazey, Roxbury	10
1918	Callanan, Francis Jervois, Boston	11
1918	Caruso, Septimio, Medford	12
1919	Church, Charles Noble, Worcester	22
1919	Coates, Everett Walton, Fitchburg	10
1919	Coffin, Whitman King, Boston	11
1918	Colmes, Abraham, Roxbury	10
1919	Conlin, Matthew George, Worcester	32
1919	Crabtree, Harvard Hersey, Roxbury	11
1918	Crawford, Lawrence Pears, Wollaston	45
1919	Cunningham, Thomas Patrick, Worcester	12
1918	Daland, Ernest Merrill, Boston	11
1919	Downing, John Godwin, South Boston	11
1919	Drake, Wallace Horne, North Weymouth	11
1919	Duffy, James Joseph, Webster	11
1919	Dushan, Samuel Sidney, Salem	12
1919	Ellis, Ralph Warner, Worcester	11
1919	*Enebuske, Claës Julius, Cambridge	11
1919	Fein, Harry, Roxbury	11
1919	Feldman, Louis, Boston	12
1919	Finck, Harry Paul, East Boston	11
1919	Fremont-Smith, Frank, Boston	19
1919	Gangemi, Michael Angelo, North Adams	12
1919	Goddard, Fred Chambers, Newtonville	12
1919	Greenberg, Boris Efim, Roxbury	12
1919	Hanlon, Joseph Peter, Hudson	8
1919	Hiebert, Daniel Howard, Provincetown	10
1919	Hoover, Clayton Elvin, Fitchburg	10
1919	Horr, Albert Winslow Malden	10
1919	Hutchinson, Charles William, Concord	11
1919	Hyman, Albert Soloman, Boston.	11
1919	Jackson, George Henry, Plymouth	11
1918	Janjigian, Robert Rupen, St. Elizabeth's Hospital	10
1919	*Jelalian, Hairabed S., Watertown	12
1919	Jones, Frank Leslie, Chatham	10
1919	Kinne, Arthur Lyman, Holyoke	6
1919	Kurth, Harold Richard, Lawrence	11
1919	Lapham, George Nelson, Rutland	10
1919	Leib, Edwin Roy, Worcester	10
1919	Leland, Leslie Phillips, Worcester	10
1919	MacLean, Donald John, Palmer	20
1919	McClure, Charles Walter, Boston	46
1919	McCrudden, Francis Henry, Boston	11
1919	McGrath, John Edward, Hudson	11
1919	McLaughlin, James Francis, Springfield	12
1918	Messier, Adlor Eugene, Worcester	12
1919	Meunier, Raymond Royale, Springfield	12
1918	Moir, Marguerite Winifred, Brookline	10
1918	Morris, Abraham Samuel, Haverhill	10
1919	*Myers, Edmund, Boston	38
1919	*Myerson, Abraham, Dorchester	12
1919	Neill, Roberta Estella, Springfield	12
1918	Nesmith, Francis Marion, Monson	17
1919	O'Connor, Alfred Smith, Worcester	12
1919	O'Hara, Francis James, North Adams	4
1919	Olds, Frank William, Williamstown	17
1918	Osgood, Herman Ashton, Boston	11
1919	Paige, Wilbur Myrtland, Lynn	12
1918	Parmenter, Derric Choate, East Gloucester	11
1919	Peterson, Arthur Fredolf, Brockton	32
1919	Phaneuf, Josephat Stanislas Policarpe, Brockton	20
1919	Powell, Charles Austin, Boston	10
1919	Resnik, Joseph, Dorchester	12
1918	Ricker, Carroll Henry, Worcester	12
1918	Ring, Arthur Joseph, Worcester	12
1919	Rockwood, Ethel May, Worcester	6
1919	Sawyer, Edward Julius, Gardner	12
1918	Schubmehl, Frank Edward, Lynn	10
1919	Schwager, Soloman, Pittsfield	30
1919	Shafer, Rudolf Jonas, Lowell	12
1919	Simmons, Hugh Ludwig, Worcester	12
1918	Steffen, Anna Elizabeth, Long Island Hospital, Boston Harbor	12
1918	*Stone, Ella Gertrude, Boston	12
1919	Van Gaasbeek, Harold, Chicopee Falls	12
1919	Vershbow, Nathan, Lowell	12
1919	Ward, John Clement, Worcester	12
1919	Wetherell, Bryant Davis, Boston	11
1919	Wheeler, William Davidson, Revere	12
1919	Woodward, William Creighton, Boston	4
1919	Wright, Charles Wadsworth, North Adams	30

Total, 87+5=92.

* Readmitted by Censors.

KEY TO MEDICAL COLLEGES.

4	Georgetown University School of Medicine.
6	Johns Hopkins University, Medical Department.
7	College of Physicians anld Surgeons, Baltimore, Md.
8	Baltimore Medical College.
10	Boston University School of Medicine.
11	Medical School of Harvard University.
12	Tufts College Medical School.
17	Columbia University College of Physicians and Surgeons.
18	Royal University of Genoa, Italy.
19	University of Pennsylvania, Department of Medicine.
20	College of Physicians and Surgeons, Boston.
22	University of Vermont College of Medicine.
30	New York University and Bellevue Hospital Medical College.
32	University of Maryland School of Medicine.
38	Jefferson Medical College.
45	Rush Medical College.
46	Starling, Ohio, Medical College.

* Readmitted by Censors.

Deaths Reported from June 18, 1918, to June 4, 1919

Admitted.	Name.	Place of Death.	Date of Death.	Age.
1867	†Ahearne, Cornelius Augustus	Lynn	Apr. 17, 1919	78
1915	Albee Kenneth Field	Weston	Sept. 24, 1918	32
1869	†Bassett, Elton James	Taunton	March 16, 1919	74
1903	Beal, Howard Walter	Paris, France	July 20, 1918	49
1868	Blake, Clarence John	Boston	Jan. 29, 1919	75
1906	Bosworth, Freeman Dodd	Brookline	June 2, 1919	43
1886	Buckley, Philip Townsend	South Boston	Sept. 19, 1918	58
1897	Butler, William Hodnett	Fall River	Oct. 11, 1918	51
1916	Caro, Heiman	Mons, France	Jan. 22, 1919	29
1914	Carroll, Michael James	Newport, R. I.	Sept. 29, 1918	36
1872	Chamberlain, Myron Levi	Boston	Feb. 13, 1919	74
1902	Chase, Walter Greenough	Boston	Jan. 27, 1919	59
1876	†Chipman, William Reginald	Chelsea	Oct. 7, 1918	69
1895	Cleaves, Frederick Henry	Brookline	Aug. 19, 1918	54
1905	Cooley, Abbot Lathrop	Chicopee Falls	Oct. 28, 1918	60
1895	Couillard, Pierre Leonard	Manchaug	Oct. 11, 1918	68
1914	Courtney, Thomas Joseph	Norfolk, Va.	Dec. 27, 1918	29
1901	Cowles, Frederick Waterman	West Brookfield	Oct. 15, 1918	52
1987	Crossman, Frank Albert	Dorchester	Aug. 5, 1918	59
1902	Cutter, Arthur Hardy	Methuen	Oct. 4, 1918	45
1892	Day, Clarence Currier	Newburyport	Oct. 17, 1918	52
1893	Dearing, Henry Lincoln	Braintree	Dec. 30, 1918	52
1917	Dennett, Paul Carroll	France	Oct. 11, 1918	26
1909	Denning, Frederic Joseph	Boston	Sept. 17, 1918	33
1899	Dole, Charles Frederick	Sharon	March 25, 1918	43
1896	Dwight, Henry Leonard	Dartmouth	Sept. 16, 1916	56
1915	Emery, William Edward	Ft. Oglethorpe, Ga.	June 11, 1918	28
1907	Finegan, Daniel Joseph	Gloucester	June 15, 1918	49
1897	Frost, Edward Clayton	New York, N. Y.	May 15, 1919	61
1888	Gallison, Ambrose John	Franklin	Feb. 13, 1918	61
1907	Giblin, Francis Joseph	Dorchester	April 13, 1919	51
1898	Gilbert, Louis Whitmore	Brookline	March 30, 1919	47
1888	Gould, Clarke Storer	Roxbury	March 28, 1919	54
1855	†Green, Samuel Abbott	Boston	Dec. 5, 1918	88
1912	Hamblen, Edward Everett	Bedford	Nov. 9, 1918	53
1889	Harrington, Thomas Francis	Boston	Jan. 19, 1919	52
1893	Hassett, John Joseph	Lee	Oct. 11, 1918	56
1883	Heath, Joseph Webster	Wakefield	May 15, 1919	65
1895	Hills, Frederick Lyman	New York, N. Y.	July 30, 1918	47
1897	Holmes, Edgar Miller	Allerton	Sept. 19, 1918	50
1902	Holmes Howard Fowler	Cambridge	May 22, 1919	48
1917	Hudson, Carl Bibb	France	Oct. 2, 1918	30
1903	Jackson, Howard Bigelow	Ft. Oglethorpe, Ga.	Oct. 13, 1918	44
1891	Jackson, James Marsh	Boston	Dec. 27, 1918	54
1907	Jones, Everett	Brookline	April 25, 1919	50
1906	Kingsbury, Walter Warren	Malden	Sept. 15, 1918	44
1904	Kirby, James Richard	Clinton	Sept. 29, 1918	41
1894	Lane, Francis Augustus	East Lynn	Oct. 29, 1918	51
1906	Lawlor, Richard Henry	Methuen	Feb. 12, 1919	47
1901	Leen, Thomas Francis	South Boston	Sept. 16, 1918	43
1905	MacCormick, John Alan	Boston	Feb. 16, 1919	46
1879	MacKeen, Alfred Atwater	Whitman	Jan. 18, 1919	65
1907	McGurn, William J	Roxbury	March 19, 1918	46
1916	Morriss, William Sarsfield	Fall River	Oct. 11, 1918	29
1893	O'Keefe, Michael Wallace	East Boston	July 16, 1918	67
1896	Ordway, Charles Anthony	Everett	Sept. 24, 1918	44
1864	Paige, Nomus	Taunton	April 16, 1919	79
1907	Perkins, Thomas Tounge	Cliftondale	Dec. 6, 1918	44
1912	Phelan, Edward Francis	France	Dec. 9, 1918	32
1879	Plimpton, Lewis Henry	Boston	Feb. 21, 1919	66
1870	Putnam, James Jackson	Boston	Nov. 4, 1918	72
1914	Ryder, Walter Irenaeus	South Boston	Sept. 24, 1918	29
1917	Salvin, Louis Wilton	Roxbury	Sept. 25, 1918	31
1892	Sawin, Robert Valentine	Storrs, Ct.	Jan. 19, 1919	62
1876	Somers, John Edward	Boston	July 4, 1918	66
1899	Stevens, Ralph Emerson	Marlboro	Sept. 18, 1918	50
1880	†Stuart, James Henry	Brighton	July 17, 1918	67
1882	Taylor, Frederic Weston	Cambridge	Jan. 21, 1919	62
1917	Towle, Fred Scates	Colonia, N. J.	Oct. 9, 1918	54
1904	Urquhart, John Edwin	Ashfield	June 14, 1918	58
1906	Walcottt, William Wright	France	March 16, 1919	39
1878	Wells, Frank	Boston	March 4, 1919	76
1906	Wells, Orion Vassar	Westford	Oct. 4, 1918	38
1914	White, Everett	Lynn	Feb. 27, 1919	48
1872	†Williams, Edward Tufts	Boston	Aug. 5, 1918	73

† Retired Fellow.

Total, 75 Deaths.

OFFICERS OF THE MASSACHUSETTS MEDICAL SOCIETY.

Chosen by the Council, June 3, 1919.

Alfred Worcester, Waltham, President.
Arthur R. Crandell, Taunton, Vice-President.
Walter L. Burrage, Jamaica Plain, Secretary.
Arthur K. Stone, Framingham Center, Treasurer.
Edwin H. Brigham, Brookline, Librarian.

STANDING COMMITTEES.

Of Arrangements.—R. H. Miller, C. H. Lawrence, Jr., Donald Macomber, A. W. Reggio, J. B. Swift, K. G. Percy.

On Publications and Scientific Papers.—E. W. Taylor, R. B. Osgood, F. T. Lord, R. M. Green, A. C. Getchell.

On Membership and Finance.—C. M. Green, Algernon Coolidge, Jr., Samuel Crowell, Gilman Osgood, Homer Gage.

On Ethics and Discipline.—J. W. Bartol, Henry Jackson, T. J. Robinson, David Cheever, F. W. Anthony.

On Medical Education and Medical Diplomas.—Channing Frothingham, C. F. Painter, J. F. Burnham, A. G. Howard, R. L. DeNormandie.

On State and National Legislation.—Alfred Worcester, F. G. Wheatley, E. H. Stevens, J. S. Stone, A. R. Crandell.

On Public Health.—E. H. Bigelow, Annie L. Hamilton, E. F. Cody, Victor Safford, R. I. Lee.

PRESIDENTS OF DISTRICT MEDICAL SOCIETIES.

Vice-Presidents (*Ex-officiis*).

Arranged according to seniority of fellowship in the Massachusetts Medical Society.

W. J. Delahanty	Worcester
J. J. O'Sullivan	Essex North
J. B. Blake	Suffolk
J. H. Nichols	Middlesex North
Joseph Frame	Plymouth
H. T. Baldwin	Middlesex South
J. A. Barré	Bristol South
A. L. Damon	Hampden
F. P. Denny	Norfolk
R. D. Perley	Middlesex East
W. F. Robie	Worcester North
E. H. Bushnell	Norfolk South
H. G. Rockwell	Hampshire
E. H. Taylor	Berkshire
F. A. Binford	Barnstable
Charles Moline	Franklin
H. G. Ripley	Bristol North
W. T. Hopkins	Essex South

COUNCILORS, 1919-1920.

Note.—The initials M. N. C., following the name of a councilor, indicate that he is a member of the Nominating Committee. V.P. indicates that a member is a councilor by virtue of his office of president of a district society, and so vice-president of the general society. C. indicates that he is chairman of a Standing Committee. Ex-P. indicates ex-president

Barnstable,
F. A. Binford, V.P., Hyannis.
E. F. Curry, Sagamore.
W. D. Kinney, Osterville.
J. P. Nickerson, M.N.C., West Harwich.

Berkshire,
E. H. Taylor, V.P. Pittsfield.
Henry Colt, Pittsfield.
E. A. Kennedy, M.N.C., Great Barrington.
C. T. Leslie, Pittsfield.
P. J. Sullivan, Dalton.

Bristol North,
H. G. Ripley, V.P., Taunton.
W. H. Allen, Mansfield.
A. R. Crandell, V.P., Taunton.
W. O. Hewitt, Attleborough.
F. A. Hubbard, M.N.C., Taunton.

Bristol South,
J. A. Barré, V.P., Fall River.
E. F. Cody, New Bedford.
C. F. Connor, M.N.C., New Bedford.
A. B. Cushman, South Dartmouth.
W. A. Dolan, Fall River.
R. W. Jackson, Fall River.
A. C. Lewis, Fall River.
A. H. Mandell, New Bedford.

Essex North,
J. J. O'Sullivan, V.P., Lawrence.
G. M. Atwood, Bradford.
R. V. Baketel, M.N.C., Methuen.
I. J. Clarke, Haverhill.
J. E. Kurth, Lawrence.
F. D. McAllister, Lawrence.
O. P. Mudge, Amesbury.
R. L. Toppan, Newburyport.
G. B. Sargent, Lawrence.

Essex South,
W. T. Hopkins, V.P., Lynn.
C. H. Bangs, Swampscott.
H. P. Bennett, Lynn.
R. E. Bicknell, Swampscott.
J. J. Egan, M.N.C., Gloucester.
S. C. Eveleth, Marblehead.
H. K. Foster, Peabody.
J. F. Jordan, Peabody.
G. M. Kline, Beverly.
W. G. Phippen, Salem.
Emile Poirier, Salem.
E. E. Shields, Gloucester.
R. E. Stone, Beverly.

Franklin,
Charles Moline, V.P., Sunderland.
E. G. Best, Greenfield.
J. W. Cram, M.N.C., Colrain.

Hampden,
A. L. Damon, V.P., North Wilbraham.
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T. S. Bacon, Springfield.
E. P. Bagg, Jr., Holyoke.
F. T. Clark, Westfield.
Helen T. Cleaves, Palmer.
A. J. Douglas, Westfield.
A. C. Eastman, Springfield.
G. H. Jaynes, Westfield.
E. A. Knowlton, Holyoke.
A. G. Rice, Springfield.
G. L. Schadt, Springfield.
J. P. Schneider, Palmer.
G. L. Taylor, M.N.C., Holyoke.

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H. G. Rockwell, V.P., Amherst.
O. W. Cobb, M.N.C., Easthampton.
J. G. Hanson, Northampton.
A. G. Minshall, Northampton.

Middlesex East,
R. D. Perley, V.P., Melrose.
H. A. Gale, Winchester.
E. S. Jack, Melrose.
G. N. P. Mead, Winchester.
M. D. Sheehan, M.N.C., Stoneham.

Middlesex North,
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W. B. Jackson, Lowell.
J. H. Lambert, Lowell.
G. A. Leahey, M.N.C., Lowell.
E. G. Livingston, Lowell.
J. A. Mehan, Lowell.
M. A. Tighe, Lowell.

MIDDLESEX SOUTH,

H. T. Baldwin, V.P., Chestnut Hill.
E. A. Andrews, Newton.
E. H. Bigelow, C., Framingham.
Richard Collins, Waltham.
C. H. Cook, Natick.
F. G. Curtis, Chestnut Hill.
C. A. Dennett, Arlington.
D. C. Dow, Cambridge.
A. W. Dudley, Cambridge.
John Duff, Charlestown.
W. E. Fernald, Waverley.
G. W. Gay, Ex.P., Chestnut Hill.
C. E. Hills, South Natick.
A. A. Jackson, Everett.
S. R. Lancaster, Cambridge.
C. E. Mongan, Somerville.
B. M. Pierce, Cambridge.
W. A. Putnam, Cambridge.
F. W. Rice, Brighton.
W. D. Ruston, West Somerville.
Godfrey Ryder, Malden.
L. F. Sise, Medford.
C. H. Staples, Malden.
E. H. Stevens, M.N.C., Cambridge.
A. K. Stone, Treas., Framingham Center.
F. R. Stubbs, Newton.
H. P. Walcott, Ex.P., Cambridge.
Fresenius Van Nüys, Weston.
G. L. West, Newton Center.
G. W. W. Whiting, Somerville.
Alfred Worcester, Pres., Waltham.

NORFOLK,

F. P. Denny, V.P., Brookline.
E. E. Bancroft, Wellesley.
W. H. Bennett, Hyde Park.
D. N. Blakely, Brookline.
E. H. Brigham, Libra., Brookline.
A. N. Broughton, M.N.C., Jamaica Plain.
W. L. Burrage, Sec., Jamaica Plain.
G. W. Clement, Roxbury.
M. J. Cronin, Roxbury.
Samuel Crowell, Dorchester.
H. W. Dana, Brookline.
A. H. Davison, Dorchester.
W. C. Emery, Dorchester.
C. S. Francis, Brookline.
H. T. Holland, Jamaica Plain.
G. W. Kaan, Brookline.
Bradford Kent, Dorchester.
F. P. McCarthy, Milton.
E. F. Murphy, Roxbury.
D. T. O'Keefe, Jamaica Plain.
W. H. Parker, Dorchester.
A. P. Perry, Jamaica Plain.
M. V. Pierce, Milton.
H. H. Powers, Brookline.
S. H. Rubin, Roxbury.
R. D. Schmidt, Milton.
C. E. Shay, Roxbury.
L. F. Vickery, Jamaica Plain.

NORFOLK SOUTH,

E. H. Bushnell, V.P., Quincy.
J. H. Libby, East Weymouth.
D. B. Reardon, Quincy.
G. H. Ryder, M.N.C., Quincy.

PLYMOUTH,

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W. C. Keith, Brockton.
C. E. Lovell, Whitman.
A. E. Paine, M.N.C., Brockton.
F. J. Ripley, Brockton.
F. G. Wheatley, North Abington.

SUFFOLK,

J. B. Blake, V.P., Boston.
J. L. Ames, Boston.
J. W. Bartol, C., Boston.
E. S. Boland, South Boston.
F. J. Cotton, Boston.
J. W. Courtney, Boston.
E. A. Crockett, Boston.
J. W. Cummin, Boston.
L. J. Cummins, Boston.
E. G. Cutler, Boston.
Lincoln Davis, Boston.
W. E. Faulkner, Boston.
Channing Frothingham, C., Boston.
C. M. Green, C., Boston.
G. S. Hill, Boston.
J. C. Hubbard, Boston.
F. L. Jack, Boston.
D. F. Jones, Boston.
E. A. Locke, Boston.
H. B. Loder, Boston.
F. T. Lord, Boston.
R. W. Lovett, M.N.C., Boston.
R. H. Miller, C., Boston.
W. A. Morrison, East Boston.
F. S. Newell, Boston.
E. H. Nichols, Boston.
B. W. Pond, Boston.
Abner Post, Boston.
Stephen Rushmore, Boston.
G. G. Sears, Boston.
G. B. Shattuck, Ex.P., Boston.
G. G. Smith, Boston.
P. M. Smith, Boston.
R. M. Smith, Boston.
E. W. Taylor, C., Boston.
Beth Vincent, Boston.
D. H. Walker, Boston.
G. A. Waterman, Boston.

WORCESTER,

W. J. Delahanty, V.P., Worcester.
F. H. Baker, Worcester.
W. P. Bowers, Ex.P., Clinton.
F. H. Clapp, North Grafton.
J. T. Duggan, Worcester.
M. F. Fallon, Worcester.
Homer Gage, Worcester.
J. O. Généreux, Webster.
R. W. Greene, Worcester.
David Harrower, M.N.C., Worcester.
E. L. Hunt, Worcester.
A. G. Hurd, Millbury.
W. L. Johnson, Uxbridge.
G. O. Ward, Worcester.
F. H. Washburn, Holden.
C. D. Wheeler, Worcester.
S. B. Woodward, Ex.P., Worcester.

WORCESTER NORTH,

W. F. Robie, V.P., Baldwinsville.
E. L. Fiske, M.N.C., Fitchburg.
J. G. Henry, Winchendon.
A. P. Mason, Fitchburg.
W. F. Sawyer, Fitchburg.

CENSORS. 1919-1920.

BARNSTABLE,

J. P. Nickerson, Supervisor, West Harwich.
E. E. Hawes, Hyannis.
J. H. Higgins, Marstons Mills.
E. E. Harris, Hyannis.
E. S. Osborne, Harwich.

BERKSHIRE,

Henry Colt, Supervisor, Pittsfield.
C. H. Richardson, Pittsfield.
A. C. England, Pittsfield.
J. T. Crowley, Adams.
E. W. Markham, Lee.

Bristol North,
F. A. Hubbard, Supervisor, Taunton.
H. B. Baker, Taunton.
T. F. Clark, Taunton.
A. R. Crandell, Taunton.
T. J. Robinson, Taunton.

Bristol South,
W. A. Dolan, Supervisor, Fall River.
W. E. Blaine, Mattapoisett.
W. T. Learned, Fall River.
C. J. Leary, New Bedford.
S. V. Merritt, Fall River.

Essex North,
F. D. McAllister, Supervisor, Lawrence.
A. M. Hubbell, Haverhill.
J. E. Bryant, Haverhill.
R. C. Hurd, Newburyport.
F. S. Smith, North Andover.

Essex South,
W. G. Phippen, Supervisor, Salem.
J. F. Donaldson, Salem.
A. T. Hawes, Lynn.
J. A. Shatswell, Beverly.
H. D. Kennard, Peabody.

Franklin,
J. W. Cram, Supervisor, Colrain.
E. G. Best, Greenfield.
C. L. Upton, Shelburne Falls.
G. P. Twitchell, Greenfield.
C. C. Messer, Turners Falls.

Hampden,
G. L. Taylor, Supervisor, Holyoke.
M. W. Harrington, Indian Orchard.
F. B. Sweet, Springfield.
E. L. Davis, Springfield.
J. J. Carroll, Holyoke.

Hampshire,
A. G. Minshall, Supervisor, Northampton.
S. A. Clark, Northampton.
J. J. Hayes, Williamsburg.
N. C. Haskell, Amherst
C. A. Byrne, Hatfield.

Middlesex East,
H. A. Gale, Supervisor, Winchester.
R. R. Stratton, Melrose.
F. T. Woodbury, Wakefield.
J. P. Carroll, Woburn.

Middlesex North,
J. H. Lambert, Supervisor, Lowell.
E. J. Clark, Lowell.
J. P. McAdams, Lowell.
G. A. Lavallee, Lowell.
J. A. Gage, Lowell.

Middlesex South,
C. E. Hills, Supervisor, So. Natick.
F. J. Goodridge, Cambridge.
C. B. Fuller, Waltham.
F. G. Smith, Somerville.
I. J. Fisher, West Newton.

Norfolk,
M. J. Cronin, Supervisor, Roxbury.
W. J. Walton, Dorchester.
B. S. Blanchard, Brookline.
C. F. Stack, Hyde Park.
E. T. Rollins, Jamaica Plain.

Norfolk South,
J. H. Libby, Supervisor, East Weymouth.
F. R. Dame, Braintree.
V. M. Tirrell, South Weymouth.
W. L. Sargent, Quincy.
W. J. Middleton, Quincy.

Plymouth,
F. J. Ripley, Supervisor, Brockton.
J. H. Drohan, Brockton.
W. W. Fullerton Brockton.
E. J. Beaulieu, Whitman.
R. B. Rand, North Abington.

Suffolk,
Stephen Rushmore, Supervisor, Boston.
C. M. Smith, Boston.
C. N. Cutler, Chelsea.
T. J. O'Brien, Boston.
J. S. Stone, Boston.

Worcester,
F. H. Washburn, Supervisor, Holden.
W. H. Rose, Worcester.
J. W. McKoan, Worcester.
Alexander McNeish, Leicester.
A. E. O'Connell, Worcester.

Worcester North,
A. P. Mason, Supervisor, Fitchburg.
G. P. Norton, Fitchburg.
C. H. Jennings, Fitchburg.
H. R. Nye, Leominster.
C. S. Brigham, Leominster.

COMMISSIONERS OF TRIALS. 1919-1920.

Barnstable, E. S. Osborne, Harwich.
Berkshire, F. C. Downing, Stockbridge.
Bristol North, C. S. Holden, Attleboro.
Bristol South, W. E. Synan, Fall River.
Essex North, J. F. Croston, Haverhill.
Essex South, J. E. Simpson, Salem.
Franklin, F. E. Johnson, Erving.
Hampden, Philip Kilroy, Springfield.
Hampshire, W. H. Adams, Northampton.
Middlesex East, R. D. Leonard, Melrose.
Middlesex North, F. E. Varney, No. Chelmsford.
Middlesex South, A. G. Griffin, Malden.
Norfolk, M. V. Pierce, Milton.
Norfolk South, N. S. Hunting, Quincy.
Plymouth, Gilman Osgood, Rockland.
Suffolk, John Bartol, Boston.
Worcester, G. F. O'Day, Worcester.
Worcester North, F. H. Thompson, Sr., Fitchburg.

OFFICERS OF THE DISTRICT MEDICAL SOCIETIES, 1919-1920.

Elected by the District Medical Societies.

Barnstable.—F. A. Binford, Hyannis, President; C. P. Curley, Provincetown, Vice-President; C. J. Bell, Wellfleet, Secretary; H. S. Hart, Yarmouthport, Treasurer; E. E. Hawes, Hyannis, Librarian.

Berkshire.—E. H. Taylor, Pittsfield, President; W. P. Kelly, Pittsfield, Vice-President; O. L. Bartlett, Pittsfield, Secretary; J. D. Howe, Pittsfield, Treasurer.

Bristol North.—H. G. Ripley, Taunton, President; Sumner Coolidge, Middleborough, Vice-President; A. R. Crandell, Taunton, Secretary; R. D. Dean, Taunton, Treasurer.

Bristol South.—J. A. Barré, Fall River, President; E. P. Gardner, New Bedford, Vice-President; A. J. Abbe, Fall River, Secretary and Treasurer.

Essex North.—J. J. O'Sullivan, Lawrence, President; D. D. Murphy, Amesbury, Vice-President; J. Forrest Burnham, Lawrence, Secretary and Treasurer.

Essex South.—W. T. Hopkins, Lynn, President; R. E. Foss, Peabody, Vice-President; G. E. Tucker Salem, Secretary; G. Z. Goodell, Salem, Treasurer; C. M. Cobb, Lynn, Librarian.

Franklin.—Charles Moline, Sunderland, President; E. C. Thorn, Deerfield, Vice-President; F. A. Millett, Greenfield, Secretary and Treasurer.

Hampden.—A. L. Damon, North Wilbraham, President; G. L. Gabler, Holyoke, Vice-President; H. L. Smith, Springfield, Secretary and Treasurer.

Hampshire.—H. J. Rockwell, Amherst, President; S. A. Clark, Northampton, Vice-President; J. D. Collins, Northampton, Secretary; J. G. Hanson, Northampton, Treasurer; F. E. Dow, Northampton, Librarian.

Middlesex East.—R. D. Perley, Melrose, President; C. L. Sopher, Wakefield, Vice-President; A. E. Small, Melrose, Secretary; Richard Dutton, Wakefield, Treasurer; G. W. Nickerson, Stoneham, Librarian.

Middlesex North.—J. H. Nichols, Tewksbury, President; E. J. Welch, Lowell, Vice-President; J. Y. Rodger, Lowell, Secretary; T. B. Smith, Lowell, Treasurer; P. J. Meehan, Lowell, Librarian.

Middlesex South.—H. T. Baldwin, Chestnut Hill, President; E. H. Bigelow, Framingham, Vice-President; L. S. Hapgood, Cambridge, Secretary; Edward Mellus, Newton, Treasurer.

Norfolk.—F. P. Denny, Brookline, President; G. W. Winchester, Mattapan, Vice-President; Bradford Kent, Dorchester, Secretary; G. W. Kaan, Brookline, Treasurer.

Norfolk South.—E. H. Bushnell, Quincy, President; F. E. Jones, Quincy, Vice-President; C. A. Sullivan, South Braintree, Secretary, Treasurer, and Librarian.

Plymouth.—Joseph Frame, Rockland, President; F. J. Hanley, Whitman, Vice-President; A. C. Smith, Brockton, Secretary and Treasurer.

Suffolk.—J. B. Blake, Boston, President; G. G. Sears, Boston, Vice-President; G. G. Smith, Boston, Secretary; D. L. Bristol, Boston, Treasurer; W. P. Coues, Boston, Librarian.

Worcester.—W. J. Delahanty, Worcester, President; F. H. Baker, Worcester, Vice-President; G. A. Dix, Worcester, Secretary; G. O. Ward, Worcester, Treasurer; A. C. Getchell, Worcester, Librarian *pro tem.*

Worcester North.—W. F. Robie, Baldwinsville, President; C. E. Woods, Lunenburg, Vice-President; C. H. Jennings, Fitchburg, Secretary; F. H. Thompson, Jr., Fitchburg, Treasurer; L. F. Baker, Fitchburg, Librarian.

◆

Obituary.

LEWIS MERRITT PALMER, M.D.

The death of Lewis Merritt Palmer, M.D., is deeply regretted by the medical profession and by many families and individuals to whom he had rendered efficient and faithful service throughout his life.

Dr. Palmer died of pulmonary embolism at the Framingham Hospital on June 4, 1919, at the age of sixty-eight years. He was born in Litchfield, Maine, on September 21, 1850. He graduated from Bates College in 1875 and from Harvard Medical School in 1881. For a while he served as resident physician at the Rhode Island Hospital, and later established a practice in South Framingham in 1882, specializing in diseases of the eye, ear, and throat. He served on the staff of the Framingham Hospital, and it was partly through his efforts that a training school for nurses was inaugurated. For ten years, Dr. Palmer has been a member of the Trustees of the Massachusetts Training Schools. He was a member of the Massachusetts Medical Society, the American Medical Association, and the Massachusetts Medical Association of Boards of Health. At the time of his death he was medical examiner in the Eighth Middlesex District. In 1909, he was made president of the Middlesex South District Medical Society. He had been acting surgeon at the Sherborn Reformatory, and assisted in the organization of a local Anti-Tuberculosis Society, of which he was president.

Dr. Palmer married Miss Nellie B. Prouty of Newport, Vermont, in 1882. His wife and two daughters survive him.

The life of Dr. Palmer has been characterized by constant devotion and active service to his fellow men, for whom his memory will always remain a precious heritage.

◆

RECENT DEATHS.

Dr. Edward Lindeman of New York was drowned on June 11, while bathing in the surf at Atlantic City. Dr. Lindeman was graduated from Yale University and Johns Hopkins College. In 1908 he began practice in New York, and served as resident physician of the children's medical service of Bellevue Hospital. Dr. Lindeman originated the syringe cannula method of blood transfusion, which took the place of the older method of supplying blood directly from the arteries of one person to the veins of another.

Dr. Arthur Brigham Norton died at his home in New York on June 18. His death was caused by heart disease following an attack of pneumonia. Dr. Norton was born in Marlboro in 1856. He was a graduate of the New York Homeopathic Medical College and Hospital, where he later became professor of ophthalmology. For thirty-five years he served as chief surgeon at the New York Ophthalmological Hospital. He was the author of several medical works and had served as president of the American Institute of Homeopathy, the National Society of Electro-Therapeutics, and New York State and New York County Homeopathic Medical Societies.

Dr. John Ruggles Greenleaf, a retired Fellow of the Massachusetts Medical Society, died at his home in Gardner, June 8, 1919, aged 78 years.